Spring 1965

1965-1966 Catalog

College of the Holy Cross

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THE COLLEGE of the HOLY CROSS

A College of Arts and Sciences

Worcester, Massachusetts 01610

CATALOGUE
(The first forty pages of this Catalogue comprise the current Entrance Bulletin.)

VOLUME 61
Spring, 1965
History of the College

In 1843 the Most Rev. Benedict Joseph Fenwick, Second Bishop of Boston, founded the College of the Holy Cross. He gave the College the name of his Cathedral with the motto and seal of the Boston Diocese. He entrusted the direction of the college to the Fathers of the Society of Jesus. Classes began on November 2, 1843, and in 1844 the first college building was erected to accommodate ninety students. However, with the exception of the east wing, this building was destroyed by fire on July 14, 1852. With the cooperation of the Bishop of Boston, Most Rev. John B. Fitzpatrick, the Fathers of the Society provided for the building of Fenwick Hall, and the college was reopened in October, 1853, with a newly-enrolled freshman class. The first graduation class of this new period was that of 1858. From 1849 to 1853 and from 1858 to 1865, degrees were conferred by Georgetown University. In 1865 the college received its charter from the state and conferred its own degrees.

In 1868 a west wing was added and the central building was raised one story and capped with two stately towers. In 1875 the east wing of the building was raised and extended. In 1893 O’Kane Hall, really a wing of Fenwick Hall, was built, and classes were held in the new addition in the following year. By 1904 the college enrollment had passed the five hundred mark. To take care of the increased enrollment, Alumni Hall was built under the direction of the President, Rev. Joseph F. Hanselman, S.J. With continued growth, a new dormitory, Beaven Hall, was opened in 1914, in the Presidency of Rev. Joseph N. Dinand, S.J. It was named after Rt. Rev. Thomas D. Beaven, ’70, Bishop of Springfield, who had sponsored its construction.

By 1920 the student body had increased to almost eight hundred so that a new dormitory, Loyola Hall, was opened under the direction of Rev. James J. Carlin, S.J., in 1922. In 1924 St. Joseph’s Memorial Chapel was dedicated. The Dinand Memorial Library was opened in 1927, under the Presidency of Rev. John M. Fox, S.J. Kimball Hall, the general student center, was erected in 1935, under the aegis of President Francis J. Dolan, S.J. Wheeler Hall was opened in January, 1940, in the Presidency of Rev. Joseph R. N. Maxwell, S.J.

In 1941 a peacetime Naval ROTC Program was inaugurated, but it was soon converted into the V-1, V-5, V-7, V-12 wartime programs. In the wartime centennial year of 1943, the student body numbered 1,200. On June 26, 1946 the naval wartime programs were discontinued, and the college reverted to its peacetime status.

In 1947 under the Presidency of Rev. William J. Healy, S.J., an intramural gymnasium was added to the college buildings. In the following year, Station WCHC was dedicated. In 1951, a new Biology building was dedicated by the President, Rev. John A. O’Brien, S.J. On July 1, 1951, the Air Force Reserve Officers’ Train-
ing Corps was established at the College, and training began in September. By 1954 the enrollment was over 1,800 so that two dormitories, Hanselman and Lehy, were constructed under the direction of Rev. John A. O’Brien, S.J. In 1959, in the era of Sputnik and the missile age, the renewed emphasis upon science was reflected with the dedication by President William A. Donaghy, S.J. of the Haberlin science building. This twelfth building was named in honor of the memory of Rt. Rev. Richard J. Haberlin, P.A., Class of 1906.

On June 16, 1960, Very Reverend Raymond J. Swords, S.J., became the twenty-fourth president of the college. Under his direction two new dormitories have been constructed on the upper campus level. The most ambitious development program in the history of the college has been undertaken for the addition of a new faculty residence and infirmary for students, faculty and college personnel; the conversion of Fenwick and O’Kane Halls into an administrative center, with new alumni quarters, and with new office dining and meeting facilities for the faculty; a social science center with an experimental psychology laboratory and student guidance center; an open stack addition to the college library; renovation of three dormitory buildings; a new student center building with a large auditorium and complete facilities for student recreation and activities programs; a new field house and gymnasium with a seating capacity of 4,000 which will provide the first indoor sports facility designed for intercollegiate games. These seven projects will cost an estimated $10,400,000. Simultaneously, a $10,000,000 endowment fund is projected to increase faculty salaries and to broaden significantly the scholarship program for students of high academic standing. To accomplish such undertakings, a $20,400,000 campaign for funds has been inaugurated by the college.

In the intervening years from 1843 to the present, amid the changes which have come through noteworthy additions to the physical plant, the establishment of new organizations for students and alumni and administrative reorganizations, two strands of unity are clearly visible: the grand and noble purpose of education and the primacy of the spiritual.
Objectives

The Student

The ideal Jesuit college graduate should have achieved a level of academic maturity consistent with certain intellectual qualities. He must have the ability to analyze, synthesize, and evaluate evidence in pursuit of truth; he must also be able to distinguish various types of evidence associated with different kinds of methodologies in the humanistic and scientific disciplines. He should have a special competence in one of these disciplines in order to give depth to his learning in one area of investigation. When in possession of evidence, he should be able to communicate it effectively. He should also have an understanding of and be able to evaluate his own culture (its literature, art, and philosophy) both in its historical development and in its present structure; he should also have some acquaintance with and appreciation of other cultures. Finally, he should have a deep understanding of his Faith that will give him a unified view of life, an awareness of the Church as continuing Christ's redemptive action; and a clear perception of his proper role as a member of the Church.

Moreover, he should be marked in the manner of personal maturity (moral, religious, spiritual development) by the following: He should be decisive in confronting life, courageous and hopeful in exercising initiative, yet loyal to legitimate authority. This will demand a positive-minded patience that is neither passivity nor abandonment of ideals. In response to the Christian vocation revealed in Scripture and Sacrament and specified by the contemporary needs and potential of the Church, he will be personally dedicated to Christ and generously committed to creative involvement and leadership in the intellectual, social, cultural, religious life of his world. He must also have a balanced appraisal of reality, especially of the material and the bodily, a recognition of the power and danger of evil, yet a reverence for the goodness of creation and of human achievement.

As a person he should be open in love to God and men of every race and creed; this will enable him to live sympathetically yet apostolically in a pluralistic world. He should have a developing familiarity in prayer with the three divine Persons. This will lead to liberality of mind, awareness of his Christian dignity, and freedom of spirit. Along with this he should have a balance of intellectual humility and independence whereby he respects the traditions and accomplishments of the past but is open to new ideas and developments.¹

Curriculum

Holy Cross College, committed to the belief in the excellence of the Liberal Arts in producing the Christian man, offers an education that combines a broadening liberal arts curriculum and a sound moral and religious training with the degree of specialization a student needs to enter upon the career of his choice.

Here his powers of reasoned analysis and synthesis are sharpened by mathematics, the inductions of the natural sciences and the deductions of philosophy; his understanding of man is broadened by great literature; his creative imagination is aroused and his aesthetic awareness is intensified by the fine arts; his faculty of communication is refined by a study of languages. History contributes a sense of perspective; the social sciences, a consciousness of the factors shaping society; theology, the intellectual foundations for his relationship with God.

At Holy Cross students may major in accounting, biology, chemistry, classics, economics, English, history, mathematics, modern foreign languages, philosophy, physics, political science, psychology and sociology.

**Religious Training**

Holy Cross College insists that in every stage of intellectual development religious instruction be interwoven with training in the secular branches of knowledge. This instruction aims at planting in the heart such principles of rectitude as will afterwards serve as a guide, a warning, a stimulus. Since Religion is the highest concern of man, Theology is a prescribed subject for Catholic students.

As a consequence of the belief in the pervasive character of religion, opportunities for the foundation of life-long practices of Christian virtue are traditional to the campus. Integral to the college year and a base for academic pursuits is the annual retreat, during which are given the Spiritual Exercises of St. Ignatius Loyola. All Catholic freshmen are obliged to make a retreat either on campus or at one of the several retreat houses approved by the College authorities.

Central in the life of a Christian man is the Holy Sacrifice of the Mass. The Mass is man's social response to the need of his nature to worship God, while from it he derives the inspiration and spiritual strength to encounter small obstacles in life with Christian patience and big ones with courage for victory. All Catholic freshmen are required to attend daily Mass either at seven o'clock or 11:30 in the morning.

At the beginning of each year there is a Religious Motivation Week, a period specially set aside for serious personal consideration of the important truths of life and living in the light of Divine Revelation.

Two Jesuit priests are College Chaplains for the guidance of students in religious and spiritual matters. At least three priests reside in each of the eight campus dormitories. Moreover, students are free to consult any of the ninety Jesuits at Holy Cross for spiritual guidance and direction.

**Discipline**

It is the constant purpose of the College to encourage the growth of personal and corporate responsibility consistent with the Christian man. Serious breaches of the code that demands respect for order, morality, personal honor and the rights of others will necessitate withdrawal from the College. The Administration reserves the right to dismiss a student at any time without any definite public charge. Detailed regulations and customs governing discipline are found in the Student Handbook.
Admissions

Admission Procedure

All correspondence pertaining to admission to Holy Cross should be addressed to the Director of Admissions. No application for admission to the class entering in September will be accepted after April 1.

All candidates must take the College Board Scholastic Aptitude Test and three Achievement Tests. These must be taken in December, January or March of the senior year in high school, preferably in December or January. The three achievement tests must include the test in English Composition, one in a Foreign Language (preferably modern) which has been studied two years in secondary school, and a third to be freely chosen by the student. Holy Cross will require the freshmen entering in 1966 to take the Level Two Mathematics Achievement Test. Therefore, the College strongly urges that freshmen entering in 1965 also take the Level Two Achievement Test. It should be noted that this test is given only in January and May of the academic year 1964-1965. The foreign language test is to be taken during the final year of study of that language. The Writing Sample is not required and may not be substituted for one of the required achievement tests. However, if the candidate has taken the Writing Sample, Holy Cross will be happy to receive a copy.

Applications will be accepted only from those students who have graduated from, or who are in the last year at, an approved secondary school, and who offer sufficient credits to satisfy the minimum requirements of fifteen entrance units in approved subjects. The Admissions Committee will give preferential consideration to those applicants whose secondary school records give evidence of superior scholastic achievement, and who merit from their school principal recommendation for college entrance. The results achieved in the College Board Tests will also be a factor in the decision of the committee. It is the responsibility of the candidate to arrange that all College Board scores be sent to the Office of Admissions directly from the College Entrance Examination Board. All acceptances are made with the presumed condition that all senior year courses and examinations will be successfully completed.

Quantitative Admission Requirements

All units submitted to satisfy entrance requirements must be recognized by the secondary school as credits towards graduation in a college preparatory course. Commercial, vocational or industrial subjects will not be accepted as entrance units. Candidates for admission must submit entrance units in the following subjects: Foreign Language, ancient or modern, 2 units; English, 4 units; Mathematics, 3-4 units; History, 1 unit; Science, 1 unit. A single unit of a Foreign Language is not acceptable.

Other units may be made up from additional units in the above subjects or in
other high school subjects, excluding commercial or industrial arts courses. A unit at the secondary school level represents a year's study of one subject, normally in a class meeting five times a week for 40 or 50 minute recitation periods, or the equivalent.

Scholarship Candidates

All scholarship candidates must complete, and have mailed to the College by February 15, the Parents' Confidential Statement of the College Scholarship Service which may be obtained at the candidate's high school or by writing directly to College Scholarship Service, P.O. Box 176, Princeton, N. J. The candidate must request the Service to mail a copy of the statement to Holy Cross before the February 15 date. All scholarships, ordinarily awarded in May, are granted on a provisional four-year basis. To warrant renewal, recipients will be required to achieve a "B" average and to maintain a satisfactory disciplinary record. Scholarships are awarded on the basis of academic excellence and demonstrated financial need. High scholastic achievement, promise of leadership, participation in significant extracurricular activities, character and personality constitute the factors on which scholarship awards are made. Candidates are required to take no examinations beyond the College Board Tests (as outlined above). For detailed information concerning financial aid opportunities at Holy Cross, please refer to the section of this bulletin entitled Financial Aid.

Advanced Placement

The College offers and encourages advanced placement for students suitably prepared. The College's policy presupposes that the candidate has pursued a strictly college-level course in the subject in which he seeks advanced placement and has attained in the Advanced Placement Test of the College Board program, a test score acceptable both to the Committee on Admissions and the Chairman of the particular department concerned.

Early Decision

Holy Cross offers an Early Decision Program which allows a superior student, who has taken all required College Board examinations in junior year, to submit an application prior to November 1 of his senior year. He must file with his application a statement that he has applied to no other college. The Admissions Committee will inform the candidate of its decision by December 1. If the Committee decision is negative, the candidate will be required to retake all College Board examinations during his senior year and his application for admission will be given full consideration at the regular time.

Early Admission

Through its program of Early Admission, by which outstanding candidates enter college one year early, the College also welcomes the applications of superior
high school juniors, recommended by their high school officials as having already attained a high degree of personal maturity and social adjustment. Such applications must be submitted prior to August 1. The required College Board Examinations must have been taken during the junior year of high school.

**Finances**

College expenses vary with the individual, but the minimum at Holy Cross would be about $2600 a year for boarding students and $1500 a year for day students. These figures include $1400 for tuition; $1100 for room and board, where applicable; and $100 for textbooks and supplies. For boarding students an additional $300 a year would be a reasonable amount for ordinary personal expenses. There is an application fee of ten dollars which must be sent by check or postal money order, along with the pre-application card, directly to the Office of Admissions. The fee is non-refundable and is not applied to any college bill. Upon receipt of formal notice of acceptance for admission to Holy Cross College, all candidates are required to forward a non-refundable deposit of one hundred dollars ($100) or two hundred dollars ($200) for students granted Early Decision or substantial financial aid. This deposit is applied to the first semester bill.

**Special Studies Program**

The Special Studies Program at Holy Cross covers the four years and meets the outstanding and promising student on his own level of ability and promise. By means of advanced sectioning, seminars, tutorials and independent study, the gifted student is challenged on the level of his interest and intellectual capability. The goal of the program is the full development of the student toward intellectual self-reliance, scholarly resourcefulness, and the fruitful exploration of his potential as a scholar and an intellectual leader in his community.

There are two divisions of the Special Studies Program: FRESHMAN STUDIES, and the HONORS PROGRAM, which encompasses the sophomore, junior and senior years. Although both programs are under the Committee on Special Studies, the two are separate, and inclusion in the Freshman seminars and special projects does not guarantee the student automatic admission to the Honors Program. At the same time, participation in the Freshman Studies Program is not a requisite for Honors candidacy.

**Freshman Studies**

The Freshman Studies Program for the promising student aims toward further articulation of advanced high school work with study on the collegiate level. It provides for advanced placement, special sectioning, freshman seminars, and tutorial study. It is open to students whose background and ability warrant special attention in the planning of their curriculum. The degree of advanced work possible for each student is determined by his special qualities and the requisite background demanded by the various academic disciplines.
**Freshman Seminars**

Seminars of no more than ten students each are offered, by departments to those students whose high school work has been on an advanced or honors level. These seminars take the place of required freshman courses in the area concerned. The student may apply for any seminar which he feels qualified to undertake. Information on the seminars available and the application procedure is sent to all accepted freshmen in July.

In 1964-1965, the following Seminars and Tutorials will be conducted:

- **Latin**: Backgrounds to the Augustan Age.
- **Greek**: Hellenic Tradition Seminar: The Comedies of Aristophanes
- **English**: Problems of Critical Analysis
- **History**: The Elements of Western Civilization: Roman Law
- **Mathematics**: Basic Concepts in Abstract Algebra and Real Analysis
- **French**: French Thought from Rationalism to Romanticism
- **German**: The Age of German Romanticism
- **Spanish**: Spanish Literature of the Golden Age
- **Sociology**: The Science of Sociology
- **Theology**: The Archaeology of Palestine and the Old Testament
- **Theology**: A Theology of Old Testament Themes

*Six credit hours each.*

**The Honors Program**

The Honors Program is concerned with a selective group of students who, through freshman academic performance, faculty recommendation, national testing scores, and individual interviews, show outstanding capability and promise in their chosen academic field. For these students the curriculum covers the fundamental requirements and is geared toward independent, responsible research and educational development.

The program has two major divisions: Sophomore Honors and Upper Division Honors. Both divisions follow in a sequential pattern to achieve the gradual training and encouragement of the student in directed research and independent study.

**Admission of Special Students**

Occasionally applicants who fulfill all the requirements for admission may, with the approval of the Committee on Admissions, choose special courses without following a complete degree program.

**Course of Studies**

The College of the Holy Cross offers to the Class of 1968 and those enrolling thereafter a curriculum leading to the Bachelor of Arts (A.B.) degree.
Requisite for graduation will be the successful completion of forty half-courses, five in each semester. (A half-course is a course of one semester duration for which three or four credits are granted.) The curriculum is divided into three parts: the Core, the Major, and Free Electives.

**THE CORE** curriculum includes the following requirements: Theology, four half-courses; philosophy, six half-courses; English, two half-courses, plus a non-credit requirement in composition; history, two half-courses; modern foreign language, two to four half-courses; and natural science, two half-courses.

A **MAJOR** consists of a maximum of twelve half-courses, including any that may be required within the CORE. Some departments may require specific courses in allied fields.

**FREE ELECTIVES** may be chosen from allied or non-allied fields under the direction of the chairman of the department in which the student is to major.

Under this curriculum, most freshman programs contain four courses common to every first year student. A change of curriculum or major, therefore, if desired at the end of freshman year, will not be difficult.

**Preparation for Medical or Dental School**

A student seeking to meet the requirements for admission to medical or dental school will be required to carry a major under the direction of one of the departments. He will fulfill his medical school requirements through the natural science requirements and other free electives according to the following pattern: two half-courses of Inorganic Chemistry in freshman year; two half-courses of Organic Chemistry in sophomore year; two half-courses of Biology; two half-courses of Physics in junior year. It is recommended that such a student also elect two half-courses in Mathematics.
Curriculum Requirements

MAJOR—BIOLOGY

FRESHMAN YEAR: 2 half-courses: English; Modern Language; Biology; Inorganic Chemistry
  1 half-course: Philosophy; Theology

SOPHOMORE YEAR: 2 half-courses: Organic Chemistry; Mathematics; Philosophy; Modern Language or Elective
  1 half-course: Biology; Theology

JUNIOR YEAR: 2 half-courses: Physics; History; Theology; Philosophy
  1 half-course: Biology; Biology Elective

SENIOR YEAR: 1 half-course: Biology; Philosophy
  8 half-courses: Electives

Minimum requirements for Major:
  6 half-courses—Biology
  4 half-courses—Chemistry
  2 half-courses—Physics
  2 half-courses—Mathematics

MAJOR—CHEMISTRY

FRESHMAN YEAR: 2 half-courses: Chemistry; History; Mathematics; English
  1 half-course: Philosophy; Theology

SOPHOMORE YEAR: 2 half-courses: Organic Chemistry; Physics; Mathematics; Philosophy
  1 half-course: Theology; Non-Science Elective

JUNIOR YEAR: 2 half-courses: Physical Chemistry; Modern Language; Theology; Philosophy
  1 half-course: Advanced Organic Synthesis; Instrumental Analysis

SENIOR YEAR: 2 half-courses: Chemistry or Science Elective; Modern Language or Non-Science Elective
  3 half-courses: Elective
  1 half-course: Inorganic Chemistry; Philosophy; Research Seminar

Minimum requirements for Major:
  7 Half-courses—Chemistry
  4 half-courses—Mathematics
  2 half-courses—Physics
MAJOR—CLASSICS

FRESHMAN YEAR: 2 half-courses: Classics; Modern Language; History; English
1 half-course: Philosophy; Theology

SOPHOMORE YEAR: 2 half-courses: Classics; Modern Language or Elective; Natural Science; Philosophy
1 half-course: Theology; Elective

JUNIOR YEAR: 4 half-courses: Classics
2 half-courses: Philosophy; Theology; Elective

SENIOR YEAR: 4 half-courses: Classics
4 half-courses: Elective
1 half-course: Philosophy; Elective

Minimum requirements for Major:
7 or 8 half-courses—Classics

The Classics course studied in freshman year for Classics majors is one of the following: 2 half-courses in Latin or 2 half-courses in Greek; 1 half-course in Latin and 1 half-course in Advanced Greek. The Latin course presupposes the study of Latin in secondary school. Students may receive permission to study 2 half-courses in Latin and 2 half-courses in Greek during their freshman year. These students will fulfill the freshman History requirement during their junior year. Students who wish to study a full year of Latin and a full year of Greek in their freshman year must request permission from the Director of Admissions.

EDUCATION—Preparation for Secondary School Teaching
Although there is no education major in the current curriculum, students intent on pursuing teaching as a career will be offered, during the junior and senior years, various elective courses in education. These will be courses in areas ordinarily required by most states, but not necessarily all, for teacher certification. Education electives offered by Holy Cross include supervised practice teaching in Worcester schools.
MAJOR—ENGLISH

FRESHMAN YEAR:  2 half-courses: Classics (Original or in Translation), English; History; Modern Language
  1 half-course: Philosophy; Theology

SOPHOMORE YEAR:  2 half-courses: English Elective; Modern Language or Elective; Natural Science; Philosophy
  1 half-course: Theology; Elective

JUNIOR YEAR:  4 half-courses: English Elective
  2 half-courses: Philosophy; Theology; Elective

SENIOR YEAR:  4 half-courses: English Elective
  5 half-courses: Elective
  1 half-course: Philosophy

Minimum requirements for Major:
  10 half-courses—English
  2 half-courses—Classics

English majors will elect one of the following to fulfill the Classics requirement in freshman year:

  2 half-courses in Classics in Translation
  2 half-courses in Greek
  2 half-courses in Latin
  1 half-course in Latin and 1 half-course in Advanced Greek

The Latin course presupposes the study of Latin in the secondary school.
## MAJOR—ECONOMICS

**FRESHMAN YEAR:**
- 2 half-courses: English; History; Mathematics; Modern Language
- 1 half-course: Philosophy; Theology

**SOPHOMORE YEAR:**
- 2 half-courses: Modern Language or Elective; Natural Science; Philosophy; Economics
- 1 half-course: Theology; Elective

**JUNIOR YEAR:**
- 4 half-courses: Economics
- 2 half-courses: Philosophy; Theology
- 1 half-course: Statistics; Elective

**SENIOR YEAR:**
- 5 half-courses: Economics
- 1 half-course: Philosophy
- 4 half-courses: Elective

*Minimum requirements for Major:*

10 half-courses—Economics

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## MAJOR: ECONOMICS—ACCOUNTING

**FRESHMAN YEAR:**
- 2 half-courses: Accounting; English; History; Modern Language
- 1 half-course: Philosophy; Theology

**SOPHOMORE YEAR:**
- 2 half-courses: Accounting; Economics; Philosophy; Mathematics or Modern Language
- 1 half-course: Theology; Economics

**JUNIOR YEAR:**
- 2 half-courses: Accounting; Philosophy; Theology
- 3 half-courses: Economics
- 1 half-course: Statistics

**SENIOR YEAR:**
- 3 half-courses: Elective
- 2 half-courses: Business Law; Economics; Accounting
- 1 half-course: Philosophy

*Minimum requirements for Major:*

8 half-courses—Accounting
11 half-courses—Economics
MAJOR—HISTORY

FRESHMAN YEAR: 2 half-courses: English; History; Modern Language; Elective
1 half-course: Philosophy; Theology

SOPHOMORE YEAR: 2 half-courses: History Elective; Modern Language or Elective; Natural Science; Philosophy
1 half-course: Theology; Elective

JUNIOR YEAR: 2 half-courses: History; History or Elective; Philosophy; Theology; Elective

SENIOR YEAR: 2 half-courses: History Elective; History or Elective
1 half-course: Philosophy
5 half-courses: Elective

Minimum requirements for Major:
10 half-courses—History

History majors will elect one of the following in freshman year:

2 half-courses in Classics in Translation
2 half-courses in Economics
2 half-courses in Greek
2 half-courses in Latin
1 half-course in Latin and 1 half-course in Advanced Greek
2 half-courses in Mathematics

The Latin course presupposes the study of Latin in the secondary school.
MAJOR—MATHEMATICS

FRESHMAN YEAR: 2 half-courses: English; History; Mathematics; Modern Language
1 half-course: Philosophy; Theology

SOPHOMORE YEAR: 2 half-courses: Mathematics or Elective; Modern Language or Elective; Natural Science; Philosophy
1 half-course: Theology; Elective

JUNIOR YEAR: 4 half-courses: Mathematics
2 half-courses: Philosophy; Theology; Elective

SENIOR YEAR: 2 half-courses: Mathematics; Mathematics or Elective
1 half-course: Philosophy
5 half-courses: Elective

Minimum requirements for Major:
8 half-courses—Mathematics
MAJOR—MODERN LANGUAGES

FRESHMAN YEAR: 2 half-courses: English; History; Modern Language; Elective
1 half-course: Philosophy; Theology

SOPHOMORE YEAR: 2 half-courses: Modern Language; Natural Science; Philosophy; Elective
1 half-course: Theology; Elective

JUNIOR YEAR: 2 half-courses: Philosophy; Theology; Elective
4 half-courses: Modern Language

SENIOR YEAR: 5 half-courses: Elective
2 half-courses: Modern Language
2 half-courses: Modern Language or Elective
1 half-course: Philosophy

Minimum requirements for Major:

8 half-courses in a single Modern Language

Modern Language majors will elect one of the following in freshman year:

2 half-courses in Classics in Translation
2 half-courses in Economics
2 half-courses in Greek
2 half-courses in Latin
1 half-course in Latin and 1 half-course in Advanced Greek
2 half-courses in Mathematics

The Latin course presupposes the study of Latin in the secondary school.
MAJOR—PHILOSOPHY

FRESHMAN YEAR: 2 half-courses: Classics; English; History; Modern Language
1 half-course: Philosophy; Theology

SOPHOMORE YEAR: 2 half-courses: Mathematics; Natural Science; Philosophy; Modern Language or Elective
1 half-course: Theology; Elective

JUNIOR YEAR: 4 half-courses: Philosophy; Elective
2 half-courses: Theology

SENIOR YEAR: 5 half-courses: Elective
3 half-courses: Philosophy
2 half-courses: Philosophy or Elective

Minimum requirements for Major:

10 half-courses—Philosophy

Philosophy majors will elect one of the following to fulfill the Classics requirement in freshman year:

2 half-courses in Classics in Translation
2 half-courses in Greek
2 half-courses in Latin
1 half-course in Latin and 1 half-course in Advanced Greek

The Latin course presupposes the study of Latin in the secondary school.
MAJOR—PHYSICS

FRESHMAN YEAR: 2 half-courses: English; Mathematics; Modern Language; Physics
1 half-course: Philosophy; Theology

SOPHOMORE YEAR: 2 half-courses: Mathematics; Philosophy; Physics; Modern Language or Elective
1 half-course: Theology; Elective

JUNIOR YEAR: 4 half-courses: Physics
2 half-courses: Philosophy; Theology; Mathematics or Elective

SENIOR YEAR: 4 half-courses: Physics
3 half-courses: Elective
2 half-courses: History or Elective
1 half-course: Philosophy

Minimum requirements for Major:
10 half-courses—Physics
4 half-courses—Mathematics
MAJOR—POLITICAL SCIENCE

FRESHMAN YEAR: 2 half-courses: English; History; Modern Language; Elective
1 half-course: Philosophy; Theology

SOPHOMORE YEAR: 2 half-courses: Natural Science; Philosophy; Political Science
2 half-courses: Modern Language or Elective
1 half-course: Theology; Elective

JUNIOR YEAR: 4 half-courses: Political Science
2 half-courses: Philosophy; Theology; Elective

SENIOR YEAR: 5 half-courses: Elective
4 half-courses: Political Science
1 half-course: Philosophy

Minimum requirements for Major:

10 half-courses—Political Science

Political Science majors will elect one of the following in freshman year:

2 half-courses in Classics in Translation
2 half-courses in Economics
2 half-courses in Greek
2 half-courses in Latin
1 half-course in Latin and 1 half-course in Advanced Greek
2 half-courses in Mathematics

The Latin course presupposes the study of Latin in the secondary school.
MAJOR—PSYCHOLOGY

FRESHMAN YEAR: 2 half-courses: English; History; Mathematics; Modern Language
1 half-course: Philosophy; Theology

SOPHOMORE YEAR: 2 half-courses: Biology; Philosophy; Modern Language or Elective
1 half-course: Psychology; Sociology; Statistics; Theology

JUNIOR YEAR: 4 half-courses: Psychology
2 half-courses: Philosophy; Physics; Theology

SENIOR YEAR: 5 half-courses: Elective
2 half-courses: Psychology
1 half-course: Anthropology; Philosophy; Psychology Seminar

Minimum requirements for Major:
8 half-courses—Psychology
2 half-courses—Mathematics
2 half-courses—Physics
2 half-courses—Biology

MAJOR—SOCIOLOGY

FRESHMAN YEAR: 2 half-courses: English; History; Mathematics; Modern Language
1 half-course: Philosophy, Theology

SOPHOMORE YEAR: 2 half-courses: Natural Science; Philosophy; Sociology; Modern Language or Elective
1 half-course: Theology; Elective

JUNIOR YEAR: 4 half-courses: Sociology
2 half-courses: Philosophy; Theology; Elective

SENIOR YEAR: 5 half-courses: Elective
4 half-courses: Sociology
1 half-course: Philosophy

Minimum requirements for Major:
10 half-courses—Sociology
Student Services

Student Health Service

All resident students at the College of the Holy Cross are entitled to medical service with the following privileges: (1) Consultation with the college physician, daily, if necessary. (2) Visits by the college physician while the student is confined in the college infirmary. (3) Board, room and nursing at the college infirmary. Nursing attendance is rendered by nurses regularly employed by the college. Special outside nurses, if employed, must be paid for by the student.

No student is obliged to patronize the college physician. With the permission of the college Director of Health and at his own expense, a student may consult any physician approved by his parents. When medicines are prescribed the expense is to be borne by the student. The college cannot furnish regular special diets to students who may require such treatment. Expenses incurred for hospital treatment must be defrayed by the individual student.

Dormitory Accommodations

The residence halls of Holy Cross have accommodations for sixteen hundred students. Each living room in the student dormitories is provided with the essential articles of furniture, such as desks, chairs, locker, beds, mattresses, pillows. Students contract privately with a linen service company recommended by the college which will supply and launder two sheets, one pillow case, two bath towels and two hand towels each week of the school year.

Accident Insurance

The college has approved a student accident medical reimbursement insurance plan which offers the student maximum benefits at low cost for the calendar year. This supplementary plan may relieve parents of possible financial strain in meeting this type of unanticipated expense.

Dinand Library

The library houses a collection of over 214,000 volumes and currently subscribes to 680 journals in all fields of endeavor. The student is afforded ample study areas in the Main Reading Room, the Stack area, the Periodical and Browsing Rooms. Most activity is realized in the Main Reading Room where thousands of reference works which span the vast areas of human knowledge, rich in subject matter and extensive in bibliography, are immediately available.

The students are instructed in the use of the library and made familiar with both the instruments and methods of research. The Periodical room affords a pleasant study atmosphere amidst a multitude of periodicals and significant periodical indices. The Browsing Room offers an air of comfort and relaxation where the student
may smoke while studying or, if he prefers, may indulge in recreational reading or make use of the 3 hi-fidelity record playing units at his disposal.

The library boasts of many special collections consisting of incunabula, books printed prior to 1500, early 16th and 17 century Jesuitana, Americana, books published in America prior to 1820, manuscript collections, Louise Imogen Guiney Memorial Collection, David I. Wash Collection and many others.

**Counseling Services**

The offices of the Deans, the Registrar, the Director of Student Aid, the Director of Health, the Director of Placement, the College Chaplains, Faculty Prefects of Dormitories and the professional staff of the Counseling Center are available to the student for guidance and assistance.

The chairmen of the academic departments are the academic advisors for upperclassmen. Each freshman has a faculty advisor to assist him in academic matters.

Special faculty advisors are appointed to guide the student in preparing for professional careers and in applying for graduate fellowships.

College Chaplains are ready at all times to assist the student in the problems that assert themselves during college years. In each dormitory live several priests available for counseling.

**Counseling Center**

The Counseling Center offers the following programs:

**FRESHMAN TESTING PROGRAM.** All entering freshmen are required to participate in a testing program, the purpose of which is to determine each student's academic potential and to assess his proficiency in the learning skills which are considered important for success in studies.

**ORIENTATION PROGRAM FOR FRESHMEN.** During the first week of school, each freshman section is assigned a member of the faculty who will serve as advisor to the students in that section. During the first semester each section has five meetings. The purpose of the meetings is to acquaint the new students with the numerous programs and opportunities available on campus and to provide the opportunity for the discussion of common problems. In addition, the faculty advisor is available to the individual student to answer questions concerning courses of study, educational and vocational goals, and the like, and to help the student with any problems which may arise during the freshman year.

**READING IMPROVEMENT AND STUDY SKILLS PROGRAM.** Since the college realizes that even students of high intellectual promise may not do well in their studies because of poor reading or study skills, the Counseling Center offers during each semester special courses in these areas. Through instruction and intensive practice in these courses, the student acquires effective study skills and the ability to read
rapidly with a high degree of comprehension. A similar program is offered during July to interested students who have completed junior or senior year of high school.

EDUCATIONAL AND VOCATIONAL GUIDANCE. Staff members are available to help students to choose worthwhile and appropriate educational and vocational goals. The Counseling Center also maintains an extensive library of literature describing the educational opportunities and the vocational areas available to college graduates.

PERSONAL COUNSELING. Professionally qualified counselors are available to help students who may be having difficulty with their studies because of personal or emotional problems.

The Counseling Center is located in Alumni 61. Students interested in the services provided may make appointments Monday through Friday, 9 A.M. to 5 P.M.

Faculty Advisors to Freshmen


Special Faculty Advisors, 1964-65

African Students .................................................. Daniel G. Dewey, M.A.
Armed Services .................................................. Rev. Charles J. Dunn, S.J.
Business Opportunities ................................. Edward Peragallo, Ph.D., C.P.A.
Foreign Students and Foreign Study ........ Rev. Alfred R. Desautels, S.J., Ph.D.
Fulbright Fellowships ................................. Rev. Thomas J. Grace, S.J., Ph.D.
Graduate Schools of Business ............................ Edward Peragallo, Ph.D., C.P.A.
Graduate Studies ................................................ Edward J. Kealey, Ph.D.

Danforth, Marshall, Rhodes, Woodrow Wilson Fellowships and Scholarships
Holy Cross College Prizes and Scholarships ...... Rev. Maurice F. Reidy, S.J., Ph.D.
Law Schools and Law School Scholarships ........ Edward J. Kealey, Ph.D.
M.A.T. Cooperative Scholarship, Harvard University “29 Plan”

Edward J. Kealey, Ph.D.

Medicine .................................................. Rev. Joseph F. Busam, S.J.
National Science Foundation Programs ........ Rev. Robert B. MacDonnell, S.J.
Public Service—Politics ................................. Rev. Walter M. Shea, S.J.
State Department ........................................... Edward J. Kealey, Ph.D.
Teaching .................................................. Joseph H. Maguire, M.A.
Alumni Placement Bureau

The Alumni Placement Bureau was established as a service to all Holy Cross graduates. Undergraduates of all classes are also urged to utilize the facilities of the bureau.

A series of career guidance talks is held during the year in which alumni and other business and professional leaders speak informally of career opportunities. Campus conferences with personnel officers of businesses and industrial firms, representatives of secondary schools and federal agencies are arranged by the bureau.

Cultural Events

Each year the educational program of the college is enriched by fall and spring programs of lectures, theatrical productions, concerts, classic films series. Eminent artists, distinguished men of letters and science, political and social scientists are invited to the campus for formal and informal presentations. In addition to the campus program, the city of Worcester offers many cultural opportunities to the students at Holy Cross. Several fine museums are located in the city, including the famous Worcester Art Museum, the John W. Higgins Armory Museum and the Worcester Science Museums, as well as the Library of the American Antiquarian Society. The newly-constructed Worcester Public Library is also available to Holy Cross students. Old Sturbridge Village, a re-creation of a colonial village, is located nearby. The Annual Worcester Musical Festival is a popular event for Holy Cross students.

Reserve Officers’ Training Corps Program

All students are eligible to apply for the ROTC programs of the Air Force and Navy.

The Air Force program leads to a commission in the Air Force Reserve and prepares for specific duties in the Regular Air Force, the Air Force Reserve and the Air National Guard Units. The Naval ROTC program prepares qualified officers for the Navy and Marine Corps, the Naval Reserve and the Marine Corps Reserve.
The oldest student organization on campus is the Sodality of Our Lady, which aims at fostering devotion to the Mother of God and at encouraging a manly piety among its members. Other religious organizations are the Confraternity of Christian Doctrine, which affords the student an opportunity to teach religion classes in local parishes, and the St. John Berchmans Sanctuary Society, from whose membership Mass servers at Holy Cross are drawn.

The Cross and Scroll Society has as its goal the promotion of student interest in cultural affairs. Each year it sponsors a series of lectures on subjects ranging from philosophy to politics and concerts ranging from folk music to Bach.

The St. Thomas More Pre-legal Society, the Biology Society, the Modern Language Clubs, the German Club, the Physics Club, the Mathematics Club, the Economics Club, and the Cross and Crucible Chemistry Society all provide an opportunity for extracurricular investigation of those fields by students interested in them.

The importance of athletics and sportsmanship in developing character has long been recognized by educational institutions. Holy Cross is no exception. The reputation of the "Holy Cross Crusaders" in football, baseball, basketball, and track is familiar to all. In addition, intercollegiate competition is carried on in such sports as fencing, swimming, lacrosse, wrestling, golf, tennis, rugby and hockey. Intramural softball, football, basketball, tennis, golf, track and bowling programs allow all to participate in the sport of their choice.

For students who are interested in the communication arts, Holy Cross maintains a weekly campus newspaper, The Crusader, a quarterly literary magazine, The Purple, the college yearbook, The Purple Patcher, and the campus radio station, WCHC. Other student publications include newspapers published by the Chemistry department, Crusader Council of the Knights of Columbus, the Freshman Class, and by various other campus organizations.

Debaters will find the Freshman Debating Society and the Benedict Joseph Fenwick Debating Society, with its varsity teams, awaiting them. Those interested in any phase of the drama will find ample opportunity to exercise their talents and to learn new ones in the Drama Society. Musicians will be welcomed by the Glee Club, the Marching Band, the Crusaders’ Dance Band, and the College Choir.

Other campus organizations include the Purple Key, the student spirit organization, the Student Congress, the Interracial Justice Club, the Knights of Columbus, the Outing Club, the International Relations Club, the History Academy, the John Colet Society (for those interested in education as a career), the Yacht Club, the Camera Club and geographical clubs serving students from the same general home area.
Social life at Holy Cross, however, consists in more than merely belonging to clubs. There are formal dances, such as the Junior Prom, the Senior Ball and the Military Ball. There are informal dances, such as the Outing Club's Mixer and the Homecoming Weekend dance. There are football weekends in the crisp October air, basketball games with the nation's leading teams, baseball games on Fitton Field in the warmth of May. There is the Spring interclass song fest on the library steps, and there are picnics, banquets, informal get-togethers, golf matches, and movies. There is the overall congeniality of living, working and praying with a great group of men. This adds up, in the long run, to what can be expressed in a few words, college life at Holy Cross.
College Expenses

GENERAL

Tuition

$1400 for each year of academic instruction.

Board and Room

$1,000—$1,100 per academic year. (Credit for a reduced-rate room will be shown on the second semester statement.) These charges include infirmary accommodations when required but do not include medicine, medical supplies or special treatment.

Off-Campus students, who expect to move on campus when accommodations are available, may arrange to take their meals in Kimball Dining Hall. Payment of this fee will be credited toward the balance due for board and room whenever the transfer is made during the semester.

Payment of Bills

Bills for one-half of each of these fees will be issued not later than two weeks prior to the opening of each semester as follows:

- Boarding Students ........................................... $1,250
- Day-Students and Off-Campus Students .................... 700
- Off-Campus Students with Dining Hall privileges .......... 1,000

Semester bills are due and payable by the date indicated on each statement rendered. Payment is to be made by check or money order, payable to the College of the Holy Cross, and sent to the Treasurer, College of the Holy Cross, Worcester, Massachusetts 01610.

Installment Payments

No provision is made for installment payment, whether monthly, quarterly or otherwise, directly with the College. Parents who wish to make such arrangements should do so with a bank or other commercial firm that handles such financing.

Tuition Plan, Inc., 1 Park Avenue, New York, N. Y. 10016 and Education Funds, Inc., 10 Dorrance Street, Providence, R. I. 02901 are two of the many firms which write contracts for installment payments.

Many states have a bank guarantee program for long-term, low-interest educa-
tion loans. Certain religious, labor and service organizations, as well as some companies also have loan programs available to members or employees.

Parents should investigate and evaluate the different programs before committing themselves to a particular repayment schedule. Whenever required, the College will be happy to cooperate with parents in arranging for any loan program that will make it easier for the parents to meet the College's own requirement that semester fees must be paid in advance of registration.

SPECIAL

Application Fee:

A fee of $10 (non-refundable) must accompany all applications for admission to the college.
Financial Aid

Scholarships

A generous number of scholarships is awarded annually to entering freshmen with stipends ranging from $100.00 to as much as full tuition depending upon the student's financial need. Included in the scholarship awards are two General Motors Scholarships and two College of the Holy Cross National Merit Scholarships. Each applicant is considered for whatever award he may be eligible, including those scholarships restricted by geographical location, parish, and so forth. Holy Cross participates in the College Scholarship Service and all applicants for scholarship aid must file a copy of the Parents' Confidential Statement which is used as a guide in determining the amount of each stipend. However, students applying for an honorary scholarship in recognition of scholastic excellence and where financial need is not a factor are not required to file the Parents' Confidential Statement.

National Defense Student Loan Program

The College administers the National Defense Student Loan Program in accordance with the National Defense Education Act of 1958 (Public Law 85-864, as amended) and such regulations and instructions as may be issued by the United States Commission of Education. A number of these loans are available to entering freshmen. Interested freshmen indicate on their application that they wish to be considered for a National Defense Student Loan. The Parents' Confidential Statement is required of all loan applicants.

Campus Employment

Openings for campus employment occur each year and are part of the financial aid program. Students may earn an average of $250.00 per year and this money is paid directly to the student and is tax exempt. Students seeking campus employment must file the Parents' Confidential Statement.
Courses of Instruction
Courses of Instruction

DEPARTMENT OF

Biology

Professors: Busam, Malumphy
Associate Professors: Campbell, Crowe, Flavin (Chairman), Lingappa
Assistant Professor: Delaney
Instructor: Healy

The primary objective of the biology curriculum is to provide a broad and solid foundation in the biological sciences and to stimulate the interested student to pursue graduate study in this field. As a secondary, though important objective, the program of courses is designed to satisfy the entrance requirements for the professional schools of medicine, dentistry and veterinary medicine.

A major in biology will consist of at least 24 credit hours in biology together with 16 credit hours in chemistry, including organic chemistry, 8 credit hours in physics and six credit hours in mathematics.

Honors work in biology is intended to offer an introduction to the purposes and methods of biological research. Candidates for the degree with honors in biology must have completed by the beginning of the senior year at least 20 credit hours in biology. Honors candidates must elect Biology 71, 72.

Biology 11.
General Botany.

Typical representatives of the plant kingdom are studied, progressing from the simplest to the most complex forms. Structure, function and physiology are dealt with in an integrated manner at all levels of plant organization. Three lectures and one (four-hour) laboratory period.

Four credit hours.

Biology 12, (55).
General Zoology.

The invertebrate and vertebrate animals that best illustrate general biological principles are selected for study. Particular emphasis is given to a study of protoplasm, the structure of cells, the principles of heredity and the structure and functions of the major groups of animals. Three lectures and one (four-hour) laboratory period.

Four credit hours.

Biology 21, (66).
Vertebrate Embryology.

A description of developmental processes in the vertebrates, including an analysis of those factors which serve to integrate and co-ordinate developmental processes. Three lectures and one (four-hour) laboratory period.

Four credit hours.

Biology 41, 42.
General Biology

In introduction to the major themes and principles of modern biology. Two lectures and one (two-hour) laboratory period.

Six credit hours.

Biology 51, (56).
Mammalian Anatomy.

A detailed study of the rabbit, stressing skeletal and other anatomical features. Two lectures and two (two-hour) laboratory periods.

Four credit hours.
Biology 54. 
Comparative Anatomy.
A study of the anatomy, evolution and taxonomic relationships of vertebrates. Three lectures and one (four-hour) laboratory period. 
Four credit hours.

Biology 61. 
Genetics.
A study of the principles and mechanisms of inheritance and variation. Three lectures and one (four-hour) laboratory period. 
Four credit hours.

Biology 62. 
General Physiology.
A study of cellular function in relation to structure, with special emphasis on surfaces, cellular energetics and the reactions of macromolecules. Three lectures and one (four-hour) laboratory period. 
Four credit hours.

Biology 63. 
Biochemistry.
A study of the fundamental chemical processes of living matter. Three lectures and one (four-hour) laboratory period. 
Four credit hours.

Biology 64. 
Microbiology.
A study of bacteria, yeasts and molds, with emphasis on their morphology, physiology and genetic relationships. Three lectures and one (four-hour) laboratory period. 
Four credit hours.

Biology 65. 
Histology.
A study of the microscopic and submicroscopic structure of vertebrate tissues and organs. Three lectures and one (four-hour) laboratory period. 
Four credit hours.

Biology 68. 
Systematics and Evolution.
A study of the concepts of modern evolutionary biology with emphasis on the various factors influencing the evolution of species. Three lectures and one (four-hour) laboratory period. 
Four credit hours.

Biology 71, 72. 
Biology Honors.
All senior honors students in Biology will take this course. The work consists of seminars and individual research. 
Eight semester hours.
Courses of Instruction

DEPARTMENT OF

Chemistry

Professors: Baril, Charest, Fiekers, Martus (Chairman), VanHook
Associate Professor: Tansey
Assistant Professors: McMaster, O’Hara, Ricci
Research Associate: Bishop

The curriculum of the Department of Chemistry is designed to provide students with a sound training in the fundamental principles and basic techniques of the science rather than deal with specialized branches of the subject. Accordingly, a student who wishes to major in chemistry is advised to choose in his Freshman year the course in General Principles, Chemistry 11, 12. He is advised also to elect in his Freshman year Mathematics 11, 12. To continue in the chemistry curriculum the student must obtain an average of 2.0 (C) in Chemistry 11, 12. Further requirements for the student who wishes to qualify for the Bachelor of Arts in Chemistry include Chemistry 21, 22, 53, 54, 55, 56. He is required also to elect Mathematics 21, 22. Physics 11, 12 and two to four half-courses in German.

The curriculum of the Department of Chemistry has been approved by the Committee on Professional Training of the American Chemical Society. Those who desire A.C.S. certification are required to elect, in addition to the above courses, Chemistry 57, 58, 61, 62 and 65. By arrangement with the chairmen of the departments involved a student may elect an upper division course in physics and/or mathematics or another upper division course in chemistry. Such substitutions are normally in lieu of Chemistry 61 and/or 62.

A student who plans a graduate course in chemistry is strongly advised to elect in his Senior year Chemistry 57, 58, 61, 62 and 65, with the possible substitutions noted.

A student who wishes to fulfill pre-medical and pre-dental requirements or who plans on majoring in biology can begin his chemistry requirements by electing Chemistry 11, 12 in his Freshman year. As noted above, the grade of C in this course is the minimum acceptable grade for continuing in the chemistry curriculum. For the present, the course in organic chemistry, Chemistry 23, 24, completes the chemistry requirements for biology majors, pre-medical and pre-dental students.

Chemistry 11
General Principles of Chemistry I and Qualitative Analysis.

A study is made of the fundamental theories and general laws of chemistry. Subatomic and molecular structure of matter is emphasized, leading to a consideration of the various types and geometry of chemical bonds. The periodic table of the elements is introduced with sufficient descriptive chemistry to illustrate theory. Chemical calculations constitute a large part of the course. The laboratory work consists mainly of semi-micro qualitative analysis, stressing equilibrium principles and the solution chemistry of some of the metals.

As a prerequisite it is strongly recommended that the student have had high school courses in both chemistry and physics.

Students majoring in Biology, Chemistry or seeking to fulfill Medical and Dental School requirements must complete General Inorganic Chemistry with an average of C or better, prior to admission to courses in organic chemistry.

Three lectures and one three-hour laboratory per week.

Four credit hours.
Chemistry 12
General Principles of Chemistry II
and Quantitative Analysis.

This course is a continuation of Chemistry 11. It carries on further with a study of solution chemistry, ionic equilibria and oxidation-reduction reactions. Introductory concepts of thermochemistry and the energies involved in chemical reactions are also introduced. Again chemical calculations are strongly stressed.

The laboratory exercises are designed to give the student a working knowledge of volumetric and gravimetric analytical techniques, and include acid-base, oxidation-reduction titrations and selected gravimetric experiments.

Chemistry 11, 12 is a prerequisite for all continuing courses in chemistry. It is required for majors in chemistry and biology and other majors who wish to fulfill pre-medical and pre-dental requirements.

Students majoring in Biology, Chemistry or seeking to fulfill Medical and Dental School requirements must complete General Inorganic Chemistry with an average of C or better prior to admission to courses in organic chemistry.

Three lectures and one three-hour laboratory period per week.  Four credit hours.

Chemistry 21. (Formerly 51)
Organic Chemistry I.

This course is a study of organic compounds from two points of view: the chemistry of the functional groups and modern structural theory and reactions mechanisms. The laboratory exercises introduce the student to experimental techniques and a study of the chemistry of the functional groups.

Three lectures and five hours of laboratory per week.  Five credit hours.

Chemistry 22. (Formerly 52)
Organic Chemistry II.

This course is a continuation of Organic Chemistry I. The laboratory work in this course will further include exercises in organic qualitative analysis.

Three lectures and five hours of laboratory per week.  Five credit hours.

Chemistry 23. (Formerly 65)
Organic Chemistry I.

This course is essentially the same as Chemistry 21, but for a shorter laboratory period. Required for biology majors and other majors who wish to fulfill pre-medical and pre-dental requirements.

Three lectures and one three-hour laboratory period per week.  Four credit hours.

Chemistry 24. (Formerly 66)
Organic Chemistry II.

This course is essentially the same as Chemistry 22, but for a shorter laboratory period. The systematic identification of organic compounds is not included in the laboratory exercises. Required of biology majors and other majors who wish to fulfill pre-medical and pre-dental requirements.

Three lectures and one three-hour laboratory period per week.  Four credit hours.

Chemistry 41, 42.
General Chemistry.

This course is designed for students who are non-science majors, and it is intended to give them an insight into the material make-up of the world around them. Theories concerning the structure of matter and the interaction of matter are introduced. Descriptive matter for the course is chosen from economic substances, such as sulfuric acid, petroleum, coal tar, rubber, plastics, foods, vitamins, hormones, proteins and the useful metals. Demonstrations illustrate the application of the scientific method.

Three lecture hours per week.  Six credit hours.

Chemistry 53. (Formerly 21)
Analytical Chemistry I.

This course is designed to give the student a working knowledge of the analytical methods and techniques used in chemistry. The laboratory exercises include acid-base and oxidation-reduction titrations in aqueous solutions as well as non-aqueous titrations. Selected gravimetric experiments are also included.

Two lectures and one three-hour laboratory period per week.  Three credit hours.

Chemistry 54.
Analytical Chemistry II.

This is a course in instrumental analysis treating the theory and practice of instrumental methods in quantitative analysis. The methods include spectrophotometry, chromatography, polarography and electro-analytic techniques. Organic as well as inorganic compounds comprise the material under study.

Two lectures and one three-hour laboratory period per week.  Three credit hours.
Chemistry 55. (Formerly 56)
Physical Chemistry I.

A study is made of the fundamental principles and methods by which the behavior of matter in its various states and forms is interpreted. Molecular constitution, thermochemistry, thermodynamics and the quantitative laws of solution are considered. A course in differential and integral calculus is a prerequisite. Laboratory training in this and the following course is designed to test the more important physico-chemical techniques, to inculcate physico-chemical habits, and to develop the habit of quantitative interpretation of such phenomena.

Three lectures and five hours of laboratory per week.  
*Five credit hours.*

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Chemistry 56. (Formerly 57)
Physical Chemistry II.

This is a continuance of Physical Chemistry I and includes such topics as homogeneous and heterogeneous equilibria, reaction kinetics, electrical conductance and electrochemistry.

Three lectures and five hours of laboratory per week.  
*Five credit hours.*

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Chemistry 57.
Inorganic Chemistry.

The lectures in this course comprise a study of inorganic compounds and the interrelations of elements and compounds according to the periodic chart. Valence studies are stressed and the ideas of Werner, Pauling, Price and current workers in the field are emphasized. The laboratory exercises begin with inorganic preparations and progress into instrumental, analytic and advanced methods, such as liquid ammonia syntheses and the like. Industrial analyses is also touched upon.

Three lectures and one three-hour laboratory period per week.  
*Four credit hours.*

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Chemistry 58.
Advanced Physical Chemistry.

This course is designed to acquaint the student with the forces which exist between and within atoms. Topics include the structure of the atom, electronic configuration, quantum theory and the electronic theory of valence. The nature of the chemical bond will be discussed and the molecular orbital and atomic orbital treatments will be applied. A study of the experimental methods used in determining structure will also be included.

Three lectures per week.  
*Three credit hours.*

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Chemistry 61. (Formerly 62)
Advanced Organic Chemistry.

This course is devoted to a study of ionic mechanisms in organic reactions. It includes the following topics: structure and bonding of organic molecules, resonance and steric effects; methods for determining reaction mechanisms; substitution and elimination reactions in aliphatic and aromatic systems; molecular rearrangements.

Three lectures per week.  
*Three credit hours.*

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Chemistry 62. (1964-1965)
Synthetic Organic Chemistry.

The course will provide students of advanced organic chemistry with the scope, limitation and stereochemical consequences of a selected group of organic reactions. The laboratory exercises will be devoted to the more advanced type of synthetic procedures, which are ordinarily beyond the scope of the introductory course.

Three lectures and one three-hour laboratory period per week.  
*Four credit hours.*
Chemistry 63. (Formerly 26)
Quantitative Analysis.

The course is designed to instruct the pre-medical student in the theory and practice of quantitative analysis. The lectures stress the theory underlying chemical quantitative analysis. The laboratory exercises include acid-base, oxidation-reduction titrations and selected gravimetric experiments.

Two lectures and one three-hour laboratory period per week. *Three credit hours.*

Chemistry 65.
Undergraduate Investigation in Chemistry.

This involves an original and individual experimental investigation with associated literature study in one of the fields of chemistry under the supervision of a member of the staff. Preliminary reading and a weekly colloquium is required. The time spent in laboratory experimentation should be equivalent to a three-hour laboratory period per week for one semester. Once a week the senior chemistry majors meet with the staff and graduate students in seminar.

*Three credit hours.*
Courses of Instruction

DEPARTMENT OF

The Classics

Professors: Ahearn, Bean, Marique, Sampey
Associate Professors: Buckley, Donaldson
Assistant Professors: G. Barry, Carroll, Lavery
Instructors: Anscomb, Banks (Chairman), Carty, Herson, Loewy

The literature of Greece and Rome as formulative factors of primary importance in the culture of the West is the dominant note in the study of Plato, the dramatists, the orators of Greece and their Latin imitators. Direct and remote influences by Greek and Latin authors on the style and content of European literature and especially on English are capital considerations in the study of Cicero and Plato, Horace and Sophocles and the whole series of incomparable masterpieces which have shaped our literatures. Hence, an accurate and detailed study of the original is indispensable to savor and know what our debt is and what absolute values still stand as the model of clear, cogent and graceful writing and speech.

I. GREEK

Greek 11, 12.
Elementary Greek.
Orthography, oral reading and memory of short Greek sentences. Study of grammar with results tested in composition work.
Six credit hours.

Greek 15.
Plato.
Plato’s Apology with readings from the Crito and Phaedo. A study of Athenian culture and Plato’s influence on literature.
Three credit hours.

Greek 16.
Lyric Poetry
A survey of the rise and development of elegiac, iambic, and melic forms among the Greeks.
Three credit hours.

Greek 21.
Intermediate Greek.
Intensive grammar review. Plato’s Apology and references to the Crito and Phaedo. A study of Athenian culture and Plato’s influence on literature. Prerequisite: Greek 11, 12.
Three credit hours.

Greek 22.
Intermediate Greek.
Euripides’ Medea. A study of Greek tragedy and the special contribution of Euripides to this field. Three credit hours.

Greek 25.
Advanced Greek.
A close reading of the Oedipus Tyrannus in the original and several other plays in English from the viewpoint of the Sophoclean idea of tragedy. Three credit hours.

Greek 26.
Attic Orators.
Selected readings from the Attic Orators with concentration on the historical and political ideas of Demosthenes.
Three credit hours.

Greek 57.
History of Greece.
An historical and literary study of Greek culture from the creation of Cretan civilization in 3000 B.C. to the death of Alexander and of democracy in 322 B.C. The course will include reading of both ancient authors and modern archaeologists.
Three credit hours.
Greek 84. Aeschylus.  
A reading of the “Oresteia” in the original with emphasis on the dramatic and literary interpretation of this work.  
*Three credit hours.*

Greek 91, 92. Greek Seminar or Tutorial.  
Open to advanced students of Greek after consultation with the Chairman. Area of study to be decided upon in conference with members of the staff.  
*Six credit hours.*

Hellenic Tradition Seminar.  
Students majoring in the Classics engage in the following courses and are expected to gain a certain mastery of the authors studied and the influence of their works on later literature. The Hellenic Tradition Seminar does not study Greek literature in isolation but with constant attention to Fortleben in all aspects relevant to the author under consideration.

Greek 55, 56. Euripides.  
(Offered in 1963-64)  
*Six credit hours.*

Greek 61, 62. Plato, nine dialogues.  
(Offered in 1958-59)  
*Six credit hours.*

Greek 71, 72. Thucydides, the Histories.  
(Offered in 1957-1958)  
*Six credit hours.*

Greek 73, 74. Sophocles.  
(Offered in 1959-60)  
*Six credit hours.*

Greek 75, 76. Herodotus.  
(Offered in 1960-61)  
*Six credit hours.*

Greek 77, 78. Aeschylus.  
(Offered in 1961-62)  
*Six credit hours.*

Greek 79, 80. Attic Greek Orators.  
(Offered in 1962-63)  
*Six credit hours.*

Greek 85, 86. Aristophanes.  
Selected plays read in the original with emphasis on the historical background, literary interpretation and study of the genre of comedy.  
(Offered in 1964-65)  
*Six credit hours.*

II. LATIN

Latin 11, 12. Roman Poets.  
Selections from the poetry of Catullus, Horace, Vergil and Ovid with a study of the philosophy of life and literature therein reflected.  
*Six credit hours.*

A course for those who have had two years of high school Latin, with emphasis on a review of grammar followed by selected readings from Cicero, Horace and Vergil.  
*Six credit hours.*

Latin 18.* Backgrounds to the Augustan Age.  
A study of Alexandrine and Republican elements in Roman Literature during the age of Augustus. Special emphasis is placed on the lyric of Catullus and Horace and the epic of Vergil.  
*Three credit hours.*

A study of the writing of Roman Historians with selections from Livy and Tacitus read in the original.  
*Three credit hours.*

Latin 22. Roman Satire.  
The meaning and form of Roman satire as observed in the selected works of Horace and Juvenal.  
*Three credit hours.*

A reading of the Latin authors from the earliest fragments to Suetonius and Gaius, with emphasis on the Latin texts and the history of the literature.  
*Six credit hours.*

Latin 59. Georgics of Virgil.  
A study of the Georgics revealing Vergil as a poet of nature in the best Hesiodic and Lucretian traditions.  
*Three credit hours.*

Latin 63. Roman Comedy.  
Selected plays of Plautus and Terence read in Latin combined with a study of Roman Comedy and its influence on later literature.  
*Three credit hours.*

*See Special Studies Program, p. 12.*
Latin 64.
Medieval Latin I.
A study of the Latin literature of the first 800 years of the Christian era including such authors as Ambrose, Prudentius, Sedulius, Fortunatus; Ausonius and Paulinus; combined with an understanding of the importance of the monastic scholars and their works from Columba, Bede etc. to the Palatine school with its scholars chiefly Alcuin.  
*Three credit hours.*

Latin 68.
Roman Pastoral.
The development of pastoral poetry in Rome as exemplified in Vergil's ten Eclogues with emphasis on his artistic originality and on the socio-political background of his time.  
*Three credit hours.*

Latin 70.
History of Rome.
The growth and downfall of the Roman Republic; the establishment of the principate; imperial government to the time of Diocletian; social and economic developments; foreign policy; sources for our reconstruction of Roman History.  
*Three credit hours.*

Latin 91, 92.
Latin Seminar or Tutorial.
Open to advanced students of Latin after consultation with the Chairman. Area of study to be decided upon in conference with members of the staff.  
*Six credit hours.*

Latin and Greek Composition.
A two semester course recommended for students going to Graduate School in Classics; principles of prose composition reviewed together with practice in writing Latin and Greek paragraphs from English models.  
*No credit.*

The following courses are offered to a Classics Major who may want a minor in Hebrew or Arabic.

Elementary courses in foreign languages will not be given credit unless an intermediate course in the same language is also satisfactorily completed.

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Hebrew 21, 22.
Intermediate Hebrew.
An intermediate course for students who have already had a year of grammar with concentration on advanced grammar and readings from the Old Testament.  
*Six credit hours.*

Hebrew 25.
Advanced Hebrew.
An introduction to textual analysis according to the methods of biblical criticism. Special stress on the Hebrew text compared with the Septuagint (Greek).  
*Three credit hours.*

Hebrew 26.
Advanced Hebrew.
Modern Hebrew readings in unvocalized texts.  
*Three credit hours.*

Arabic 21, 22.
Intermediate Arabic.
An intermediate course for students who have already had a year of grammar.  
*Six credit hours.*

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III. CLASSICS IN ENGLISH

Classics 27, 28.
Classics In Translation.
The objective of this course is the attainment of a reasonable understanding and appraisal of Classical literature through the application of Classical theories of literary art to the major works of the major Greek and Roman authors.  
*Six credit hours.*

Classics 39.
Greek, Roman, and Medieval Theatre.
A study of these three theatres as seen in the plays themselves together with a literary, historical and theatre analysis of the three periods.  
*Three credit hours.*
Courses of Instruction

DEPARTMENT OF

Economics

Professors: Peragallo, R. F. X. Cahill, B. W. McCarthy
Associate Professors: T. J. Cahill, R. J. Smith
Assistant Professors: Gross, O’Connell, Petrella (Acting Chairman), Reid
Instructors: D. King, Palmer

The curriculum of the department has been conceived with the one major objective of providing the student with as broad and well balanced an education as possible. Specialization is kept to a minimum. Course content is basically theoretical and aimed at developing the student's analytical and critical faculties, at stimulating his powers of interpretation, synthesis and understanding, and at training him to exact thinking. The emphasis is on the understanding of our economic system and on the analysis of its economic and business problems. The student is thus prepared to continue his education at the graduate level or to enter effectively into the business world. The curriculum is broadly integrated and in accordance with the liberal arts tradition.

Economics 11, 12 (41, 42).
Principles of Economics.
A study of the basic institutions and principles underlying the operation of the economic system. Particular attention is given to the factors of production, the laws of demand, supply and price, the conditions of pure and imperfect competition, monopoly, the laws of distribution, money and banking, interregional trade, government and business, business cycles, labor problems and comparative economic systems.
Six credit hours.

Economics 15, 16 (43, 44).
Financial and Administrative Accounting.
A study of the fundamental principles of accounting and of the theory upon which these principles are based. Topics covered include the steps in the accounting cycle leading to the preparation of the balance sheet and income statement, the valuation of current and fixed assets, accounting for payroll, and the special problems involved in partnership and corporation accounts. Two practice sets are done outside of class.
Six credit hours.

Economics 21 (also History 55).
Economic History of the United States.
A critical study of the development of the American economy from Colonial days to the present, focusing attention on such areas as agriculture, labor and industry, population and immigration, banking and finance, foreign and domestic commerce, transportation and communication, and the changing role of the government in economic life. Lectures, outside readings, book review.
Three credit hours.

Economics 25.
Economic Theory—Micro-Economics.
This course offers a micro-economic analysis of some sophistication. It treats of the geometry of modern demand and of utility. It analyzes production functions and competitive pricing. It contrasts the markets of monopoly and oligopoly. The assumptions and limitations of the classical models of economics are closely scrutinized.
Three credit hours.

Economics 26.
Economic Theory—Macro-Economics.
This is a post-Keynesian analysis that
Economics 31, 32 (45, 46).
Asset and Equity Accounting.
This course provides instruction in corporation accounting with special emphasis on the preparation and interpretation of corporate financial statements. A thorough study of the balance sheet is made from the viewpoint of content and proper valuation procedures, with special emphasis on pertinent American Institute of Accounting Bulletins. Statements are analyzed by means of horizontal and vertical analysis and through ratio analysis. Training is also given in the preparation of statements from incomplete data, and in the preparation of the statement of application of funds.
Six credit hours.

Economics 45, 46.
Business Law.
Required of all students majoring in accounting. The course includes contracts, agency, sales, negotiable instruments, the legal aspect of business associations, insurance, and property, both real and personal. The course is intended to correlate the accounting and legal aspects in reference to common business transactions. It is also intended to aid in the understanding of the social significance of law and the part it has played in the development of our economic life.
Six credit hours.

Economics 49.
Labor Economics.
This course emphasizes the institutional aspects of the labor movement. Beginning with a theoretical framework for the study of the union in American life, the course is concerned with labor history (integrated with American economic history and the history of American thought), the nature of collective bargaining, union bargaining power, the national emergency dispute, union monopoly, the influence of the union on labor mobility and productivity, and the creation and application of public policy. Prerequisite Eco. 11, 12. Three credit hours.

Economics 51.
Corporation Finance.
After first considering the corporation vis-a-vis other forms of business organization this course treats of the organization and control of corporations, alternative methods of financing both long-term and short-term requirements for funds, characteristic financial policies and structures of important industry groups, and the role of the promoter and of the investment banker in business finance. Attention is also given to the preparation of cash budgets and the analysis of financial statements. Prerequisite: Eco. 11, 12. Three credit hours.

Economics 52.
Statistical Analysis.
The course is intended to orient the student in the use of statistical methods in economic analysis. The basic concepts of statistical inference, probability theory, and correlation analysis are applied to investigations of price and income data and theory, decision theory, and an introduction to stochastic models. Prerequisite: Eco. 11, 12 and Math 16. Three credit hours.

Economics 53.
Money and Banking.
The purpose of this course is to introduce the student to the economic principles governing modern monetary arrangements, credit and banking in the economic system. Special emphasis is placed upon an understanding and evaluation of the control mechanisms in the central banking system and the integration of modern income and monetary theory. Prerequisite: Eco. 11, 12.
Three credit hours.

Economics 58.
Public Finance.
This course covers the basic concepts of governmental expenditure, taxation, debt, budget, fiscal policy, intergovernmental fiscal relations, and foreign public finance systems. The economic consequences of public fiscal policies are emphasized.
Two credit hours.

Economics 61, 62.
Cost Accounting.
An introductory study of basic cost accounting principles, practices, and proce-
dures, with a special emphasis on job order costs, process costs, standard cost, and estimated costs; managerial control through the use of cost accounting data and procedures; and special applications of cost accounting procedures. Prerequisite: Eco. 31, 32.

Economics 63.
Auditing.
A study of the theory and practice of auditing. The laboratory work covers a test audit of a small manufacturing concern. A written thesis is required and it must be reported upon and defended in an open discussion group. Prerequisite: Eco. 61, 62.

Economics 65, 66.
Federal Income Taxation.
A study of the federal income tax laws as they affect individuals, partnerships, and corporations. Consideration is also given to the history of the federal income tax statutes, various proposals for tax reform, and the use of tax policy as a tool to stimulate economic development and counteract cyclical fluctuations. Prerequisite: Economics 31, 32.

Economics 67.
Advanced Accounting.
Parent and subsidiary accounting relationships are studied and a critical analysis is made of the principles and postulates of accounting based upon the study of the Accounting Research Bulletins of the American Institute of Accountants and the Accounting Releases of the Securities and Exchange Commission. Research topics are assigned and reported upon. The course is organized on a group discussion basis. Prerequisite: Eco. 61, 62.

Economics 71.
History of Economic Thought.
The aim of this course is to stress critically the development of ideas and theories which now dominate economic science, by viewing these various contributions at their sources. Prerequisite: Eco. 25, 26.

Economics 72.
Modern Economic Theories.
This course deals with the ideas and theories which are now current, examining the biographical background of the various authors, the genesis of their contributions, and instiuting a critical evaluation of their work. Prerequisite: Eco. 25, 26.

Economics 73.
Comparative Economic Systems.
An historical and critical analysis of the various systems of economy is made. The origin, nature, function and economic significance of Communism, Socialism, Nazism, Fascism, Capitalism are explained.
The broad foundations of social philosophy underlying each system are emphasized, as are the variants between theory and practice. The social goals and economic institutions of the various systems are compared. Prerequisite: Economics 25, 26.

Economics 75.
Industrial Organization and Public Policy.
This course presents an investigation of the basis of government-business relationships together with an historical development of control. It includes special problems of control relative to trusts, public utilities, transportation, extractive industries, exchanges and labor. Prerequisite: Eco. 11, 12.

Economics 77.
Directed Readings in Economics.
A program in reading and research open to qualified Economics majors.

Economics 78.
International Economics.
This course is primarily a study of the theory of international trade. It is concerned with the theoretical basis for international trade, the determination of the terms of trade among nations, the price and income adjustment processes in a nation's balance of payments and the effect of restrictions such as tariffs and import quotas upon a trade situation. Prerequisite: Eco. 25, 26.
lective bargaining, theories of collective bar-
gaining and its development as an American
institution. Emphasis is placed upon the
economic impact of union-management bar-
gaining; wage determination, Classical Eco-
nomics, marginal productivity theory and
collective bargaining; wages, productivity,
inflation; the employment effect of a wage
increase; technological change, automation
and unemployment; the economics of the
shorter work week and the future of collec-
tive bargaining in a changing economic en-
vironment. Prerequisite: Eco. 49.

Credit for the first semester in the following courses will not be given unless the second
semester is also completed: Economics 11, 15, 41, 43.
Courses of Instruction

DEPARTMENT OF

Education

Instructor: Maguire (Acting Chairman)

To meet the needs of those students who wish to become secondary school teachers upon graduation or thereafter, the Teacher Preparation Program offers a number of courses in Education to juniors and seniors. All courses are by arrangement with the instructor, to enable the student to develop his potential to the fullest, and to allow the greatest freedom in courses. The program is especially geared to the requirements for public secondary school teaching in Massachusetts.

Education 61.  
Adolescent Psychology  
This course is a study of behavior arising from the problems proper to that period of transition from childhood to maturity.  
Three credit hours.

Education 62.  
Principles of Guidance.  
This course introduces the future teacher to the area of guidance in the schools. It gives the student an acquaintance with the various subdivisions of guidance, such as counseling, educational and occupational information, and group guidance.  
Three credit hours.

Education 65. (Formerly Education 14)  
History of Education in the U. S.  
A study of the history of American education, including higher education, from the mid-seventeenth century to the present.  
Three credit hours.  
(Not offered 1964-65)

Education 67.  
Educational Psychology.  
The student is introduced to many of the relationships existing between psychology and education. The nature of the learner, the teaching-learning process, and the role of the teacher in the widest development of the child, are studied.  
Three credit hours.

Education 68.  
Philosophy of Education.  
This course acquaints the student with the thinking of Aristotle, Augustine, Aquinas, Dewey and Maritain.  
Three credit hours.  
(Not offered 1964-65)

Education 70.  
Student Teaching.  
A strictly supervised program, for selected students, of practice teaching and observation in a public secondary school.  
Three credit hours.

Education 72.  
Student Teaching.  
A strictly supervised program, for selected students, of practice teaching and observation in a public secondary school.  
Six credit hours.

Education 75.  
Principles and Methods of Secondary School Education.  
The principal stress of this course is on general methods of teaching and curriculum planning.  
Three credit hours.

Education 76. (Formerly Education 22)  
Tests and Measurements.  
A study of the tests and evaluation devices used by schools and counseling agencies. Administration, use, and testing theory are discussed.  
Three credit hours.  
(Not offered 1964-65)
Courses of Instruction

DEPARTMENT OF

English and Fine Arts

Professors: Bean, Connors, Cummings, Drumm, McCann
Associate Professors: Grace (Chairman), E. F. Callahan, Healy
Assistant Professors: Dorenkamp, Goodin, Lewis, L. J. McCarthy (Assistant Chairman), Dailey, Madden, Ryan, Scannell
Instructors: Fortuna, P. McGrady, McIntyre, Skelly, Williams, Wilson
Lecturers: Mirliani, Reardon

The English courses in the first two years, required of all undergraduates, combine analysis of various forms of literature with composition for the purpose both of developing the ability to read with comprehension and of improving the writing and speaking skill of the student. For those with deficiencies in the background necessary for this kind of work, a brief program in basic expression is provided at the beginning of freshman year.

The English course for majors, either A.B. or B.S., offers a variety of authors, periods, and forms of literature so that the student may choose a sequence of courses fitted to his development and future needs, whether in graduate school, law, business or some other field. The emphasis in all the courses is on the development of critical judgment grounded in sound historical understanding. Two term papers in each of the junior and senior years will be required of all majors.

In addition to the regular sequence of courses, for Honors students and those interested in graduate studies, a series of seminars and tutorials is available by arrangement with the Chairman of the Department. This program allows the superior student to work more independently and probe more deeply into problems than he would ordinarily be required to do.

English 11, 12.
Introductory English.
This is a course designed to enable the freshman to explore the nature of literature through the detailed examination of literary texts and to develop his ability to write clear, precise expository prose through frequent critical essays and individual conferences with his instructor.
Six credit hours.

English 15, 16.
Advanced Placement Rhetoric Seminar.
A seminar in Rhetorical approaches to literature offered in lieu of the two year English requirement for advanced placement students. Admission is open to students who have achieved high scores on the Advanced Placement Examination and promising students of advanced background.
Six credit hours.
(Not offered in 1964-65).

English 17, 18.
Satire and Sentimentalism in the 18th Century.
A study of the verse essays and satires

1 On leave (1964-65).
of Dryden and Pope and the prose of Addison, Steele, and Swift. The second semester will investigate the development of the novel in the 18th century from Defoe to Sterne, including the works of Richardson, Fielding, Goldsmith, Johnson, and Smollet. (Not offered in 1964-65). Six credit hours.

English 19, 20.
The Drama: Problems and Explanations.
A seminar inquiring into the nature of tragedy and comedy, and the tragic and comic experience. (Not offered in 1964-65). Six credit hours.

English 21 A and B.
Rhetorical Analysis.
A study of the principles of classical rhetoric and the rhetorical analysis of essays and speeches, satire, epic and drama. Advanced composition and oral delivery is an integral part of the course.
Six credit hours.

English 27, 28.
Classics in Translation.
The objective of this course is the attainment of a reasonable understanding and appraisal of Classical literature through the application of Classical theories of literary art to the following works: Homer, The Iliad; Euripides, Medea, Alcestis; Sophocles, Oedipus the King, Antigone; Aeschylus, Agamemnon, Prometheus Bound; Aristophanes, The Frogs; selections from the histories of Herodotus, Thucydidies, Xenophon; Aristotle, The Poetics; Demetrius, On Style; Longinus, On the Sublime; Plato, The Apology of Socrates, The Crito, The Phaedo; Vergil, The Aeneid; Plautus, The Haunted House, The Menaechmi, The Rope; Terence, Phormio, The Woman of Andros; selections from the histories of Polybius, Livy, Sallust, Suetonius, Tacitus; Horace, The Art of Poetry, the Odes; Quintilian, On Education. (This course is given by the Classics Department.) Six credit hours.

English 41.
Anglo-Saxon Literature.
A survey of the writings in England between the seventh and the eleventh centuries; beginning with the Anglo-Latins, and progressing through the popular, courtly, religious, and heroic traditions in poetry. Emphasis is given to the poetic forms and especially to the heroic work, Beowulf. The literature is read in translations, but provision is made for students with a reading knowledge of Anglo-Saxon.
Three credit hours.

English 45.
Chaucer.
Reading and critical discussion of the complete text of The Canterbury Tales.
Three credit hours.

English 46.
Introduction to Middle English.
An introduction to the language and literature of mediaeval England by a careful study of selected texts, with special attention to the Gawain poet and Langland.
Three credit hours.

English 51.
English Renaissance Literature, Non-Dramatic.
A survey of the writings (exclusive of drama) in England during the 16th Century; in prose, beginning with the Oxford Reformers, through the Behavior Book writers, critical essayists, and romancers, to the later Elizabethan polemicists; in poetry, beginning with Skeltonic verse, through the lyric and narrative poets, to Spenser's Faerie Queene.
Three credit hours.

English 55, 56.
Shakespeare.
A careful study of the principal plays with special emphasis on Shakespeare's development as a dramatist. Analysis and study of the outstanding characters and a consideration of the historical and theatrical background of the plays. Lectures, reading and written papers. Six credit hours.

English 57.
Tudor and Stuart Drama.
A study of the dramatic literature of the Renaissance, exclusive of Shakespeare, from Lyly to Shirley with particular emphasis on Marlowe, Jonson, and Beaumont and Fletcher. Three credit hours.

English 61.
English Literature (excluding drama) of the first half of the Seventeenth Century.
This course, which stresses metaphysical poetry, acquaints the student with representative selections from the following authors: Bacon, Donne, Burton, Hobbes, Herrick, Herbert, Walton, Carew, Browne, Waller, Suckling, Crashaw, Lovelace, Cowley, Marvell and Vaughan.
Three credit hours.
This course proceeds from a study of Milton's early poems to the reading of Paradise Lost, Paradise Regained and Samson Agonistes. Certain prose pamphlets are read either in their entirety or in selections. Three credit hours.

English 65. Dryden, Swift and Pope.
While emphasizing the work of Dryden, Swift and Pope, this course (which omits the novel) also includes selections from Samuel Butler, Pepys, Rochester, Prior, Defoe, Steele, Addison, Shaftesbury, Mandeville, Gay, Thomson, Young, Blair and Shenstone. Three credit hours.

English 66. Johnson and the later Eighteenth Century.
This course (which omits the novel) acquaints the student with Collins, Gray, Boswell, Johnson, Christopher Smart, Macpherson, Churchill, Walpole, Goldsmith, Sheridan, Beattie, Chatterton, Cowper, Burns, Crabbe, Burke, Paine and Blake. Three credit hours.

English 71. Poetry of the Nineteenth Century, 1798-1832.
The general characteristics of the romantic movement. Wordsworth, Coleridge, Byron, Shelly, Keats. Three credit hours.

A survey of the novel from Richardson and Fielding to the end of the nineteenth century. Three credit hours.

English 75. Prose of the Nineteenth Century; Poetry of the Victorian Period.
(Not offered in 1964-65)

English 81. British and American Drama.
The purpose of this course is to survey the developments in modern drama in English since the dramatic revival of 1890. It will consist of background lectures and careful examination and discussion of the texts of representative plays of the movement. Three credit hours.

English 82. Modern British Literature.
A survey of the major British poets and novelists since 1914. Concentration will be on the works of Yeats, Auden, D. H. Lawrence, Joyce, Aldous Huxley, and the new generation of writers since the close of World War II. Three Credit Hours.

English 83. American Literature in the 19th Century.
The purpose of this course is to acquaint the student with the major figures of 19th Century American Literature. The content of the course accordingly deals with Emerson, Thoreau, Hawthorne, Melville, Poe, Emily Dickenson, Henry James. Three credit hours.

English 84. American Literature since 1900.
This is a continuation of English 83. The purpose of the course is to acquaint the student with the American novel as form. The content moves from Howells to Faulkner. Three credit hours.

English 91, 92. History of the English Language.
A chronological study of English as a linguistic phenomenon. The first semester introduces the student to the language in its earlier stages, and includes a basic course in phonetics. The second semester completes the historical analysis and handles contemporary linguistic principles and problems in some detail. The two semesters must be taken as a unit. Six credit hours.

English 93. Modern Criticism.
An introduction to literary criticism of the twentieth century, its backgrounds and its development from I. A. Richards to Northrop Frye. (Seniors only.) Three credit hours.

English 96. Seminar, Bibliography and Method.
For Seniors only. Two credit hours.

Fine Arts 51.
Art Appreciation and History I.


Fine Arts 53.
Art Appreciation and History III.


Fine Arts 61, 62.
Appreciation of Music.

A general cultural course, in lecture form, tracing the development of music from early civilization to modern times, studied through history and analysis. This course is designed specifically to give the lay-musician and music-lover a cultural background with which to enjoy, understand and appreciate music in its many forms and phases. Six credit hours.

Fine Arts 65, 66.
Harmony.

An introduction to harmony; a study in the construction and uses of chords; elementary composition and a background for instrumentation and arranging; a cultural course to aid in the harmonic analysis of music. Six credit hours.

Fine Arts 71.
Studio Painting and Drawing I.

An introduction to the methods of creative expression with emphasis on the techniques of pictorial organization. Perspective, light and shade, line, form, and color are applied to drawing and painting projects from still-life, landscape and imagination. These are developed in the basic techniques including pencil, pen and ink, charcoal, pastel, and oil painting. Three credit hours.

Fine Arts 72.
Studio Painting and Drawing II.

Continues the development of creative expression and sound craftsmanship in the basic techniques. Extensive emphasis is placed on figure drawing, anatomical research, and portrait painting. Compositional elements, color dynamics and design factors are stressed, especially in relation to contemporary art expression. Previous art training or experience are not a requirement for Fine Arts 71 and 72. Three credit hours.

Fine Arts 73.
Studio Painting and Drawing III.

An intermediate course in creative art which stresses the major modes of expression and techniques. Emphasis is placed on the complex and evolving dynamics in creative design, especially as it applies to large scale figure composition, abstract expressionism, non-objectivism, and the functioning of form and color symbols in art expression.

Prerequisite: Fine Arts 71, 72, or equivalent. Three credit hours.

Fine Arts 74.
Studio Painting and Drawing IV.

A continuation of the study of essential pictorial compositional factors with added emphasis on method, the psychological and physical impact of color and form, and the development of personal style. Experience in three-dimensional media and practical experiments with some of the rarer techniques such as encaustic, egg tempera, serigraph, etc., are required.

Prerequisite: Fine Arts 71, 72, or equivalent. Three credit hours.
Courses of Instruction

DEPARTMENT OF

History and Political Science

Professors: Corcoran, Grattan (Acting Chairman), Higgins,¹ G. King,² Lucey
Associate Professors: Duff, Kinsella, O. McKenna, Reidy, Schiff
Assistant Professors: J. Flynn, Green, Kealey
Instructors: Anderson, J. Carroll, Merino, Powers, Wall
Visiting Lecturers: Dauvergne, Ojha, E. Shea

HISTORY COURSES

History is one of the great traditional areas of knowledge. Concerned with human nature, with what man has said and thought and done, with the persistent problems of human existence, with the totality of man’s experience in the past, it records the causal relationships and the development of his socially significant past activities. Selective and interpretive, it preserves and teaches values and ideas which affirm the dignity and the inviolable spiritual qualities of the human person.

This knowledge, acquired by scientific method and presented with literary art, provides the means of understanding another age or society (or a culture other than one’s own), of entering fully into the life of the past, of knowing its presuppositions, outlook and spirit, and of learning how to interpret it. History establishes perspective as a defense against excessive “presentism,” frees us from preconceptions, and enables us to place ourselves, in the atomic and space era, in relation to other individuals, societies and ages. The matrix study of western civilization contributes to an understanding of our great heritage and of the institutions which we cherish—the intellectual foundation for an understanding of the modern world, of the expansion of Europe to the Americas, Asia and Africa, and the impact of the emerging nations of these continents on the world of the mid-twentieth century. Basically humanistic, with all civilization for its province, by its very character history is the bridge between the humanities and the sciences.

Honors students are afforded opportunities to participate in seminars, tutorials and research projects by arrangement with the Department.

History 17, 18.³
The Elements of Western Civilization: Roman Law.

A seminar dealing with the development of Roman law, its qualities and codification up to the time of Justinian, and its impact upon both the middle ages and modern times. Six credit hours.

History 21.
The Political and Cultural History of Europe: 1648-1815.

An analytical study of the political, social, economic, and cultural history of Europe from the end of the Thirty Years War to the era of Napoleon. Three credit hours.

¹ On leave (1964-65)
² Deceased, January 6, 1965.
History 22.
The Political and Cultural History of Europe Since 1815.
A continuation of History 21 to the present time. Three credit hours.

History 25.
A Survey of Western Civilization from Christian Antiquity to 1648.
The development of Western Civilization in its significant movements and institutions to the termination of the Thirty Years War. Three credit hours.

History 26.
A Survey of Western Civilization Since 1648.
A continuance of History 25 to the present time. Three credit hours.

History 43.
Historical Methodology.
History and its relation to the social sciences; methods of research and criticism; historians and historical writings; theory and interpretation. Three credit hours.

History 46.
The United States from the Colonial Period to the Civil War.
A study of political, social, economic, and cultural developments in the United States from the early settlements to the end of the Civil War. Three credit hours.

History 47.
The United States Since 1865.
A continuation of History 46 to the present time. Three credit hours.

History 48.
The United States in the Twentieth Century.
Several salient political, social, economic, or cultural problems in the United States are selected for investigation, discussion and appraisal. Three credit hours.

History 51, 52.
Diplomatic History of the United States.
A study of the foreign policies and relations of the United States with regard to Europe, Latin America, Canada, Africa, and the Far East. Six credit hours.

History 57, 58.
A study of the evolution of the imperial ideal in the wake of the industrial revolution and the imperial reformers in the nineteenth century. Emphasis will be on overseas expansion and political and constitutional development in Canada, Australia, New Zealand, and in India and South Africa. Six credit hours.

History 61.
This course emphasizes religious, political and economic factors from the beginning of the reign of Henry VII to the end of the reign of Elizabeth I. Weekly discussion on reading assignments. Three credit hours.

History 62.
Stuart England: 1603-1715.
This course emphasizes religious, political and intellectual factors from the beginning of the reign of James I to the end of the reign of Anne. Frequent discussion of reading assignments. Three credit hours.

History 63, 64.
The Renaissance of the Twelfth Century, 1050-1200.
A study of how two conceptions (the changing values of feudalism and the growth of a reformed Papacy) combined to create a new Medieval World based on increasingly strong monarchies (England and France) and heightened intellectual speculation (St. Anselm, the rise of the universities). Rome, the Empire, England, and France are the focal points in this study which will stress source readings and independent investigations. Six credit hours.

History 65, 66.
Europe in the Nineteenth Century.
Napoleonic Era; Congress of Vienna; Political and Social Revolutions; Unification of Germany and Italy; Russia; the British Empire; Social Theories. Six credit hours. (Not offered 1964-65)

History 67, 68.
Europe in the Twentieth Century.
The causes of World War I; the Versailles Treaty; the League of Nations; Russia and Bolshevism; Nazism; Fascism; the Far Eastern Situation; the Spanish War of 1936; World War II. Six credit hours.

History 71, 72.
History of Latin America.
A study of colonial and national histories of Latin American Republics. Six credit hours.

History 73, 74.
Development of East Central Europe.
This course traces the development of the peoples who live "between the Germans and
the Russians," and who formed the states of Estonia, Latvia, Lithuania, Poland, Czechoslovakia, Austria, Hungary, the Ukraine, Rumania, Bulgaria, Yugoslavia, Albania, and Greece. Six credit hours.

History 75, 76.
History of Russia.
A study of the economic, social, religious, political and cultural history of the Russian people from the period of ancient Kiev to the present. Six credit hours.

History 77.
Diplomatic History of Russia: 1801-1917.
This course concerns Russia and the great European powers throughout the Nineteenth Century. It will focus particularly on Russian expansion in Central Asia, and Russian relations with the Ottoman Empire in the Balkans, while examining political doctrines and cultural movements in Russia which moulded and shaped Russian foreign relations. Three credit hours.

History 79, 80.
The Emergence of Nationalism in the Middle East: 1870-1964.
An examination of various nationalist movements in the Middle East; Pan Islamism, Turkish Nationalism, Arab Nationalism, and Pan Arabism. After 1918, political developments of the Arab World and the Middle East will be emphasized, especially in the period between the two World Wars. Current phases will be considered. Six credit hours.

History 81, 82.
The Far East in Modern Times.
A study of the political, social and economic history of the Far East: China, Japan, Philippines Islands, India, Pakistan, Burma, Indo-China, Malaya, and Indonesia. Six credit hours.

History 83, 84.
History of Africa.
A study of the political, social and economic history of the nations of Africa. Six credit hours.

History 85.
Reading Course in History and Government.
Reading of a selected list of documentary and authoritative works under direction with individual reports and discussion. Students enrolled in this course must receive approval of the Department. Three credit hours.

History 87, 88.
Special Topics in History.
This course is distinct from the seminars, tutorials, and research projects which are offered to honors students, whose field of concentration is History, within the context of the foregoing elective courses. It includes tutorials, in specialized areas of the field, which are fitted to the requirements of highly qualified students. Students enrolled in this course must receive approval of the Department. Six credit hours.

History Honors-Tutorial Course No. 87
Christian Archeology (50 to 650 A.D.)
The early history of Spain, civil and ecclesiastical, is the subject matter of this course. The aim is to achieve familiarity with the literary and monumental sources for the period under consideration. Participants will be expected to do research along the lines exemplified in Leaders of Iberian Christianity. (Two semesters—three credits each.)

History 97, 98.
Research Project and Thesis.
Seniors in honors may undertake a research project and thesis with approval of the Department. Six credit hours.

POLITICAL SCIENCE COURSES

Political Science is the systematic study of the political aspects of man's nature and of the state. It studies human nature in its behaviour as it is affected by changing political processes and situations, the motivation and action of individual leaders, public officials, social and economic groups, public opinion, the process by which public policy is fashioned and patterns of political activity develop. It investigates the nature and purpose of the state, the principles on which it rests, the justification of political authority, the struggle for control of the state, problems of legislation and administration, the relationship between man and his government, the role of the state in achieving the "good life," the legal aspects of political phenomena, the organization, practice and principles underlying court systems, the nature and development of the great, human freedoms, the governmental procedures of different countries, and the relations of states in the family of nations.

The study of Government is calculated to enable the student to know the political
ideas of the great thinkers down through the ages, and the forces behind the control of the state.

Credit for the first semester in the following course will not be given unless the second semester is also completed: Political Science 11.

Political Science 11, 12.
An Introductory Course in Political Science.
A study of the nature and functions of the State; types of government; development and essentials of representative government; constitutional government; problems of administration. Required for a major in political science. Six credit hours.

Political Science 41, 42.
American Government.
An examination of the origin of the federal republic and the content of the Constitution of the United States; national, state and municipal government; modern problems. Six credit hours.

Political Science 45, 46.
International Relations.
A study of the basic factors in international relations; the multi-state system; power factors; geography, population, natural resources; economic development and system; political system; foreign policy; diplomacy; atomic problems; international organizations; the United Nations, achievements and problems; World Government. Six credit hours.

Political Science 51, 52.
Diplomatic History of the United States.
A description of this course will be found under History 51, 52. Six credit hours.

Political Science 55.
Origin and development of the parliamentary system and the common law. Three credit hours.

Political Science 57, 58.
History of Political Thought.
An examination of the political ideas and theories of the pre-Christian writers, the early Christian era, of the scholastics, moderns and contemporaries. Six credit hours.

Political Science 61.
American Political Parties.
The function of political parties and the history of political parties in the United States. Three credit hours.

Political Science 62.
Public Administration.
A study of the theory, organization and problems of public administration. Three credit hours.

Political Science 65, 66.
Constitutional History of the United States.
An examination of the origin and content of the Constitution, of the nature of the federal republic and the presidential system, of the development of the Constitution and of current constitutional problems. Six credit hours.

Political Science 71.
Government in Economic Life.
This course is offered by the Department of Economics under Economics 75. Three credit hours.

Political Science 73, 74.
Comparative Modern Governments.
A study and comparison of the major modern governments of the Soviet Union, England, France, and Germany. Six credit hours.

Political Science 75, 76.
The Emergence of Nationalism in the Middle East: 1870-1964.
A description of this course will be found under History 79, 80. Six credit hours.

Political Science 78.
An examination of Soviet foreign policy under Lenin, Stalin and Khrushchev. Analysis of ideology and doctrinal formulations versus international political realities. Three credit hours.

Political Science 79.
Diplomatic History of Russia: 1801-1917.
A description of this course will be found under History 77. Three credit hours.

Political Science 80.
The U.S.S.R.
This course is offered by the Department of Sociology under Sociology 71. Three credit hours.

Political Science 81, 82.
Political Geography.
Major political problems of the world as related to geographic factors and applied to selected regions. Six credit hours.

(Not offered 1964-65)

Political Science 83, 84.
Contemporary Political Perspectives.
The social and political conceptions of Papal pronouncements and those of the World Council of Churches. Six credit hours.

Political Science 85, 86.
Seminar in Political Science.
Research with individual reports on selected topics. Students enrolled in this course must receive approval of the Department. Six credit hours.
Courses of Instruction

DEPARTMENT OF

Mathematics

Professors: McBrien (Chairman), Nestor
Associate Professor: Shanahan
Assistant Professors: Dewey, J. MacDonnell, J. R. McCarthy
Instructor: Perkins

The program in mathematics is based upon the awareness of the increasing contribution of mathematics to contemporary culture as well as its key role in scientific and humanistic education. Because mathematics has undergone basic changes in content as well as in point of view, there is strong emphasis in all courses on a synthesis of old and new concepts. This approach invokes the interest of the sincere student and quickly brings him to a better understanding and use of mathematics.

Seminars, individual discussion and research projects are an integral part of the department program. Mathematics majors have the use of a Common Room for informal discussion with staff members and fellow students. The O'Callahan Science Library has a fine selection of classical and contemporary mathematics books, monographs and journals available to all students in the college. The college has an I.B.M. 1620 Computer with time available for instruction and research in numerical analysis.

Mathematics 11, 12.
Principles of Analysis I, II.

This course is intended to provide the beginning student with the mathematical concepts necessary for the study of mathematics beyond elementary calculus. The course begins with a brief study of the algebra of sets and the algebra of functions, with applications to coordinate geometry, and goes on to consider the construction and properties of various subsystems of the real and complex numbers, polynomials and rational functions, groups, rings, fields, and field extensions. The second term is devoted to the calculus of real functions and the topics considered are: the Riemann integral, area and volume, the derivative, algebra of derivatives, techniques of integration, elementary differential equations, vector valued functions, and a brief introduction to power series.

Six credit hours.

Mathematics 15.
Introductory Analysis.

An elementary introduction to calculus for students majoring in the biological and social sciences. Topics covered include a brief study of the algebra of sets and the algebra of functions, with applications to coordinate geometry, the neighborhood topology of the real line, limits and continuity of real functions, the derivative function, partial derivatives, the definite integral, applications of differentiation and integration to the behavioral sciences.

Three credit hours.

Mathematics 16.
Introduction to Probability and Related Topics.

After discussing compound statements, truth tables and combinatorial counting problems, the course takes up general properties of probability measures, conditional probability, independent trials process, mean and

1 On leave (1964-65)
variance of random variables, the binomial measure with its Poisson and normal approximation, Chebyshev's inequality and the law of large numbers. Topics are also selected from Markov chains, linear programming, and continuous probability. Among examples and applications, emphasis is placed on the behavioral sciences. Three credit hours.

Mathematics 17, 18. 1
Basic Concepts in Abstract Algebra and Real Analysis

After an axiomatic treatment of the real number system, the n-dimensional euclidean spaces and other metric spaces important in analysis are studied. Limits and continuity of functions defined on arbitrary metric spaces are followed by differentiation and integration of real functions. (The student is expected to develop independently his ability to solve the usual computational problems of the calculus.) Methods of constructing the various number systems from primitive notions are investigated. Certain algebraic properties are then abstracted and the theories of groups, rings, fields and vector spaces are studied. Six credit hours.

Mathematics 21, 22.
Principles of Analysis III, IV.

This course is a study of the calculus of several variables. It begins with a study of continuity of functions from $E^n$ to $E^1$, and in the first term covers double and triple integrals with applications, transformation of integrals and the Jacobian, transformation of coordinates, the derivative and gradient of a scalar field, the chain rule for partial derivatives, and problems involving maxima and minima. Topics covered in the second term include an introduction to line integrals, Green's theorem, curl and divergence of vector fields, surface area, special first and second order differential equations, linear differential equations including power series solutions, and topics in numerical analysis. Six credit hours.

Mathematics 41, 42.
Advanced Calculus.

After a study of the elements of linear algebra, which includes vector spaces, linear transformations, the scalar product and the vector product, and the adjoint of a transformation, the following topics are taken up: the calculus of vector-valued functions, the Frenet equations, steady flows, real-valued functions of several variables, line integrals, the differential, the implicit function theorem, tensor products and exterior algebra, differential forms, integrals of forms over singular chains, the de Rham theorem. A class in advanced calculus with more emphasis on applications to physics and chemistry is conducted every year. Six credit hours.

Mathematics 43, 44.
Theory of Complex Functions.

This course begins with a brief review of the algebraic structure of the complex numbers and those basic topological concepts associated with the ideas of limit and continuity. The idea of an analytic function is then introduced and in the light of this notion a thorough study is made of elementary functions. Subsequent topics include contour integration, the Cauchy integral formula with its consequences, the Taylor and Laurent series-expansions, and the residue theorem with its applications. Mapping properties of complex functions and some examples of conformal mapping are also presented. With the fundamentals of complex function-theory established, some of the uses of this theory in the field of applied mathematics are considered. Six credit hours.

Mathematics 45, 46.
Algebraic Topology.

The first six weeks are spent acquainting the student with topological problems and various topological invariants used to solve them. After an introduction to the elements of point-set topology, the following topics are considered: complexes, homology groups, incidence matrices and computational methods, the Euler-Poincare formula, invariance of homology groups, classification of closed surfaces, three-dimensional manifolds, n-dimensional manifolds including Poincare duality, cohomology groups, the cup product, axioms for homology, and homotopy groups. Six credit hours.

(Not offered 1964-65) 2

Mathematics 51, 52.
Abstract Algebra.

The purpose of this course is to provide a systematic development of algebraic systems and to study those topics which are most useful in the application of algebra to other parts of mathematics and to other sciences. Topics covered include quotient groups, exact se-

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1 Special Studies Program. Cf. p. 12.

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quences, the isomorphism theorems, vector spaces and linear transformations, field extensions with some Galois theory, modules, tensor products, and topics on Noetherian rings.  

_Six credit hours._

(Not offered 1964-65)

**Mathematics 53, 54.**

**General Topology and Measure Theory.**

Topological ideas are introduced through a treatment of metric space topology. After the study of open, closed, compact and connected spaces with emphasis on their behavior under continuous mappings, selected topics from functional analysis are considered. These include lim sup and lim inf, relation of uniform convergence to differentiation and integration, and the Stone-Weierstrass approximation theorem. The second semester topics include an introduction to measure theory and Lebesgue-Stieltjes integration, Hilbert space and other material from linear space theory. _Six credit hours._

**Mathematics 55, 56.**

**Theory of Probability**

This course in the algebra and calculus of probability includes the following topics: basic notions of probability defined on discrete sample spaces, combinatorial analysis, conditional probability, the binomial, Poisson and normal distributions and the De-Moivre-Laplace limit theorem; random variables and their numerical characteristics, generating functions, recurrent events, random walks and Markov chains, limit theorems and the laws of large numbers. _Six credit hours._

(Not offered 1964-65)

**Mathematics 61, 62.**

**Special Topics I, II.**

Special topics involving extensive reading in mathematical literature. The subject matter may vary to suit the requirements of the student. This course is intended for students who will have completed, with high honors, four complete upper division courses in mathematics, or who participate in an undergraduate research program sponsored by the department. _Six credit hours._

**Mathematics 63, 64.**

**Mathematical Logic.**

Several systems of pure logic and applied logic will be discussed within a general framework which consists of three basic aspects of symbolic languages: grammatical construction, interpretations, and deductive systems. The major results relative to completeness, incompleteness and decidability will be considered within his framework. _Six credit hours._

(Not offered 1964-65)

**Mathematics 65, 66.**

**Honors Seminar.**

The chief aim of the mathematics seminar is to provide an opportunity for individual and group investigation of topics not covered in course work by the mathematics majors. The method employed in the seminar is active participation on the part of the students. The general topic of discussion varies from year to year. _Six credit hours._

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*These courses will be offered in 1965-66.*
Military Science

A. Department of Aerospace Studies

Professor: Lieutenant Colonel Grady (Chairman)
Associate Professor: Lieutenant Colonel Marrkand
Assistant Professors: Captain Kehoe, Captain Morrill

The mission of the Air Force Reserve Officers' Training Corps is to select and prepare students, through a permanent program of instruction at civilian educational institutions, to serve as officers in the Regular and Reserve components of the United States Air Force.

The College of the Holy Cross is one of more than one hundred and seventy Colleges and Universities throughout the country which have Air Force ROTC Units.

The Air Force ROTC at Holy Cross has a four-year program and a two-year program. The four year program is divided into phases, the Basic Course, normally completed during the Freshman and Sophomore years, and the Advanced Course—normally completed during the Junior and Senior years. The Air Force furnishes the AFROTC student with the distinctive Air Force blue uniform. Text books required are furnished by the Air Force. In addition the AFROTC advanced students are entitled to a retainer pay which amounts to $40.00 per month.

Significant changes in the Air Force's traditional on-campus ROTC program were announced under the provisions of the recently enacted ROTC Vitalization Act of 1964 (Public Law 88-647).

Of primary concern to students is the new two-year feature of the program which allows interested and qualified students to substitute a Field Training Course for the first two years of the four-year ROTC program and then enter the advanced ROTC program. The new two-year program permits students who for various reasons did not enroll in the AFROTC basic course during their freshman and sophomore years, to apply, and if qualified, begin their officer training in their junior year. The new Field Training Course is designed to compress the basic course requirements of the four-year program so that students entering the program at the junior level, will do so on a par with their contemporaries who have completed the basic course. Students who have had previous active military service do not have to attend the Field Training Course.

Cadets scheduled for pilot training after commissioning will be given a flight training course during their senior year. This flight instruction program is designed to determine a cadet's aptitude for flying. This course may lead to certification by the Federal Aviation Agency for a private pilot's license.

Students who meet certain qualifications and who are selected by a board of officers, military and institutional, are granted a deferment from induction into the service under the Selective Service Act, provided they sign a deferment agreement, in which they agree among other things, to serve on active duty for a period of time as prescribed by the Secretary of Air Force.

ELIGIBILITY REQUIREMENTS

A candidate for enrollment must be a citizen of the United States between the ages
of 14 and 23 years at the time of enrollment, be of high moral character and take such physical examinations as may be prescribed by proper authority and/or present a certificate of health from a doctor.

OE 100 (AS 11, 12)  
World Military Systems  
An introductory course exploring the causes of the present world conflict, the role and relationship of military power to that conflict, and the responsibility of an Air Force Officer. The course begins with a discussion of the factors from which differing political philosophies have evolved. It continues with a tridimensional analysis of the three prime political philosophies which have guided segments of society in the twentieth century. This is followed by a discussion of the means that nations develop to pursue their objectives and how they confront each other in the use of these means. The course then treats individual military systems with emphasis upon the U. S. Department of Defense and the U. S. Air Force. Two lectures. One hour leadership training laboratory. Two credit hours per academic year.

OE 200 (AS 21, 22)  
World Military Systems  
Continues the study of world military forces and the political-military issues surrounding the existence of these forces. This includes a study of the United States Army, and the United States Navy, their doctrines, missions and employment concepts; a study of the military forces of NATO, CENTO, SEATO, and their role in free world security; and an investigation of the military forces of the USSR, the Soviet Satellite Armies, and the Chinese Communist Army. Concludes with an analysis of the trends and implications of world military power. Two lectures. One hour leadership training laboratory. Two credit hours per academic year.

OE 300 (AS 41, 42)  
Growth and Development of Aerospace Power  
A survey course about the nature of war; development of airpower in the United States; mission and organization of the Defense Department; Air Force concepts, doctrine, and employment; astronautics and space operations; and the future development of aerospace power. Includes the United States space programs, vehicles, systems, and problems in space exploration. One hour leadership training laboratory for four year students. Six credit hours.

OE 400 (AS 51, 52)  
The Professional Officer  
A study of professionalism, leadership, and management. Includes the meaning of professionalism, professional responsibilities, the military justice system, leadership theory, functions, and practices, management principles and functions, problem solving, and management tools, practices and controls. One hour of leadership training laboratory for four-year students. Six credit hours.

B. Department of Naval Science

Professor: Captain Rooney (Chairman)  
Associate Professor: Lt. Col. Hecker (Executive Officer)  
Instructors: Major McKeon, Lieutenant Ekleberry, Lieutenant Moser, Lieutenant O’Brien, Lieutenant Watts

The Department of Naval Science, a recognized department of instruction within the college, has as its purpose the providing of instruction in professional subjects dealing with the Navy and Marine Corps, which, when added to the other academic instruction provided by the college, will meet the purpose for which the Naval Reserve Officers Training Corps was established.

The purpose of the Naval Reserve Officers Training Corps, (The Corps consists of the NROTC Units at fifty-two colleges and universities throughout the United States) is to provide a steady supply of well-educated junior officers for the Navy and Marine Corps, and to build up a reserve of trained officers who will be ready to serve the country at a moment’s notice in a national emergency. Students enrolled in the NROTC are of two categories—Regular and Contract. All procedures, benefits and require-
ments described hereinafter apply to both categories of NROTC students unless specifically indicated as pertaining to only one of the two types.

MILITARY STATUS

NROTC students wear the uniform only on such occasions as prescribed by the Professor of Naval Science. Normally, this will be at drills, ceremonies, and on cruises. In addition to the ordinary requirements of gentlemanly conduct, they are subject to naval discipline and must conduct themselves at all times in a military manner when under naval jurisdiction, that is, when attending naval science classes, drills and exercises, and during summer training periods.

With the exception of the above described instances, NROTC students are in the same category as other students of the College.

STATUS ON GRADUATION

Contract students: After completion of their academic requirements for a baccalaureate degree and the four years of Naval requirements, which include the summer training, contract students are commissioned as ensigns in the U.S. Naval Reserve or second lieutenants in the U.S. Marine Corps Reserve. They are eligible for call to active duty as indicated below under "Draft Deferment."

Regular students: Upon graduation, regular students are commissioned as ensigns in the U.S. Navy or second lieutenants in the U.S. Marine Corps. They are normally required to serve on active duty for a period of four years. Their seniority as Regular Navy ensigns or Regular Marine Corps Second Lieutenants is integrated with the Naval Academy Class of their graduating year, and as Regulars, requests to remain on active duty are unnecessary.

SUMMER TRAINING

Regular students: All regular students are required to take two summer cruises and one summer period of aviation-amphibious indoctrination, usually of eight weeks' duration each. The cruises are made on board modern warships. The aviation indoctrination is usually conducted at Corpus Christi, Texas, and the amphibious indoctrination is usually conducted at Little Creek, Virginia.

Contract students: Contract students are required to take only one summer cruise during the summer between their junior and senior years, the cruise being of approximately six weeks' duration.

Travel expenses for both regular and contract students from the College to the summer training site and return are furnished by the government. In addition, all students receive active duty pay during summer training amounting to approximately $75.00 per month.

EMOLUMENTS

Regular students: For regular students the cost of tuition, fees, and textbooks is paid by the government. Necessary uniforms are provided and students receive retainer pay at the rate of $600 per year.

Contract students: Contract students receive no emoluments during the first two years in the program. During the last two years they receive a subsistence allowance which amounts to approximately $27.00 a month. They are issued the necessary uniforms and Naval Science textbooks at no expense.
ELIGIBILITY REQUIREMENTS

A candidate for the NROTC must:

1. Be a male citizen of the United States.
2. At the time of his enrollment, if a minor, have the consent of his parent or guardian.
3. Be not less than seventeen nor more than twenty-one years of age on July 1 of the year in which he enters the program. (Contract students may be enrolled if sixteen years of age on July 1 of the year in which he enters the program.)
4. Gain his own admittance to the college.
5. Agree to remain unmarried until commissioned.
6. Be physically qualified, in accordance with the requirements for the U.S. Naval Academy, except that the vision requirements for Contract students are 20/40 each eye, corrected by lenses to 20/20, and for regular students 20/40 each eye, correctible to 20/20 is permissible, if the student scores in the highest 10% in the national examination.
7. If a contract student, he signs an agreement to accept a commission, if tendered, as an ensign, U.S. Naval Reserve, or second lieutenant, U.S. Marine Corps Reserve, and serves three years on active duty upon completion of college training, if called by the Secretary of the Navy.
8. If a regular student, he signs an agreement to accept a commission, if tendered, to retain this commission for a period of six years and to serve not less than four years on active duty as an officer, if called by the Secretary of the Navy.

SPECIAL PROCEDURES

Contract students are enrolled by the Professor of Naval Science upon their own application and are subject to selection and physical examination at the college within a limited quota as assigned by the Navy Department. These students are taken primarily from the entering freshman class at the beginning of the fall semester.

Inasmuch as the selection of contract students is completed during the first week of the fall semester and in view of the fact that the contract quota is limited, all eligible students who desire to be considered for the NROTC program should apply prior to the first day of classes in the fall. An application is not binding, and, even after enrollment in the program, a contract student may withdraw from the program, without prejudice, upon his own request at any time within the first two years.

However, enrollment is normally for four years and there is no change from “basic” to “advanced” status when entering the junior year of college.

Regular students enter the NROTC through a nation-wide test and selection system conducted by the Naval Examining Selection, Science Research Associates, 104 Pearl Street, McHenry, Illinois. The competitive examination is conducted in the late fall of the year, approximately nine months before enrollment of the applicant.

Transfer from contract to regular status; Contract NROTC students may compete for regular status and if selected will be enrolled as regular students without loss of standing.
THE NAVAL SCIENCE STUDENT

Disqualified NROTC applicants may take the Naval Science course for the purpose of acquiring advanced standing to be used when applying for NROTC enrollment at a later date in the event of removal of the disqualification. Also, the Naval Science course may be taken by those students who have no interest in NROTC enrollment, but who wish the instruction. Students in either of the above categories are known as Naval Science Students.

Naval Science students receive credit for satisfactory completion of the Naval Science course, but have no official status in the NROTC Program, and receive none of the advantages of the Regular and Contract NROTC students other than the training and background gained. This training would prove to be beneficial should the graduated Naval Science student apply for a commission through sources normally available to college graduates other than the NROTC Program.

DRAFT DEFERMENT

A student enrolled in the Naval ROTC will be deferred from the draft (Selective Service of 1948 and Universal Military Training Act of 1951) if he satisfactorily pursues the Naval ROTC course for four full years, including the summer training period applicable to his status as contract or regular student.

A contract student who is disenrolled loses his draft deferment.

A regular student who is disenrolled will be transferred to enlisted status in the U.S. Naval Reserve or U.S. Marine Corps Reserve.

The Naval Science student is not deferred from induction for service under the Selective Service Regulations.

CURRICULA

General: In order to obtain a commission either in the U.S. Navy, U.S. Naval Reserve, U.S. Marine Corps, or U.S. Marine Corps Reserve, students are required to obtain a baccalaureate degree and complete twenty-four semester hours in the Department of Naval Science.

The following courses may not be taken by a regular student:

Pre-Medicine, Pre-Dental, and Pre-Theological. A contract student may take such courses but it is to be remembered that all NROTC graduates usually go on immediate active duty upon graduation, and so additional training for one of those professions will be delayed until completion of the period of obligated naval service. Educational tours for regular NROTC midshipmen may be extended in individual cases, upon approval of the Chief of Naval Personnel, to permit attainment of doctorate degree.

During each semester every student is required to attend two laboratory periods of one hour's duration each week. He is also required to complete mathematics through trigonometry, or a semester of college mathematics, by the end of his sophomore year. In addition, each regular student must complete one year of college physics. Two separate curricula in naval science subjects are offered in the junior and senior year, leading to commissions in the Line of the Navy, and the Marine Corps.
NS 11.
Sea Power and Orientation.
A study of the Department of Defense, the basic customs and traditions of the Navy, the present-day Navy and the student's part in it. Three credit hours.

NS 12.
Sea Power and Orientation
A study of the influence of Sea Power upon global history. The stimulation of a living interest in the Navy and an appreciation of the contributions of Sea Power to the past, present, and future progress of the United States. Three credit hours.

NS 21.
Naval Weapons.
A study of the fundamentals of naval weapons and weapons' systems, stressing basic principles and their application to the control of the seas. The following major areas are covered: Basic weapons delivery problems, basic sciences, basic gunnery, typical fire control systems, anti-submarine warfare, guided missiles, nuclear weapons, space technology and the employment of naval weapons; a realistic and practical coverage of the duties of a Gunnery Department officer including specific problems and solutions, responsibilities, and authority. Three credit hours.

NS 22.
General Psychology.
A study of the psychological nature of the individual and of groups, and the influences effecting human action and interpersonal relations. (This course will be taught by a member of the Department of Philosophy.) Three credit hours.

NS 41.
Naval Operations.
A study of the responsibilities of naval officers in shipboard operations; such as relative movement, tactical communications and instructions, and rules of the nautical road. To afford a basic understanding of fleet communications and an introduction to electronic countermeasures. A study of the operational importance of the weather. Three credit hours.

NS 42.
Navigation.
A study of the theory and technique of surface navigation. Familiarization of the student to the extent that he will be able to assist intelligently the Navigator of a ship to conduct it safely by modern methods of navigation. A study of the fundamentals of naval tactics. Three credit hours.

NS 51.
Naval Engineering.
A study of basic naval engineering, including main propulsion steam plants, diesel engines, and ship stability. Three credit hours.

NS 52.
Naval Administration.
A study of the general responsibilities of administration, discipline, and leadership, which the student must assume upon acceptance of a commission. Three credit hours.

Candidates for commission in the Marine Corps will be required to complete NS 11, 12, 21, and 22. In place of NS 41, 42, 51, and 52, they will take courses in Marine Corps subjects as follows:

NS 45.
Evolution of the Art of War.
An historical study of the evolution of warfare, including: Principles of War, Offensive Combat, Defensive Combat, and studies of warfare in specific eras. Three credit hours.

NS 46.
Evolution of the Art of War and Modern Basic Strategy and Tactics.
A continuation of the historical study of the evolution of warfare developing into a treatment of modern basic strategy and tactics. Three credit hours.

NS 55.
Amphibious Warfare, Part I.
A study of the development of amphibious warfare operations and their employment in World War II. Three credit hours.

NS 56.
Amphibious Warfare, Part II.
Leadership, and the Uniform Code of Military Justice.
A continuation of the study of amphibious warfare concentrating on tactics, equipment, and modern methods of employment. A study of the general responsibilities the student must assume when commissioned, in the fields of leadership, discipline, and naval justice. Three credit hours.
Courses of Instruction

DEPARTMENT OF

Modern Languages and Literatures

Professors: Boursy, Bowen, S. E. Flynn
Associate Professors: Desautels (Chairman), Lowe, J. McKenna, McNerney
Assistant Professor: Baker
Instructors: Bourcier, J. Burke, Daley, Kopp, Lamoureux, Zwiebel

The curriculum of this department is designed to enable the student to acquire proficiency in one of the languages offered and to become familiar with the culture, civilization, and literature of the related language community. In order to satisfy the basic requirements the student is expected to understand the language spoken at normal speed, to express himself orally with a reasonably good accent, to read and understand literary and scholarly writings, and to write simple prose. The more advanced courses give the student an opportunity to study a great variety of authors, periods, and forms of literature.

Students may major in French, German, Russian, or Spanish. The program for a language major involves twenty-four credits. A minimum of eighteen credits must be taken in courses given by the department. The six additional credits may be taken in an allied field.

A Modern Language laboratory on the ground floor of Carlin Hall has forty booths equipped with a full range of electronic instruments: tape recorder, microphone, headset, and a channel selector to receive any one of the five different programs transmitted from the console. The work performed in the laboratory is coordinated with classroom activity and is of invaluable assistance for the oral-aural approach to language.

Elementary courses in foreign languages will not be given credit unless an intermediate course in the same language is also satisfactorily completed.

I. FRENCH

French 11, 12.
Elementary French.
The aim of this course is to teach the student to speak, read and write simple idiomatic French. Three hours weekly, and one period of laboratory practice.
Six credit hours.

French 13, 14 (formerly Fr. 15B, 16B)
Lower-Intermediate French
A review of the French language, supplemented by readings and by practice in oral expression. Prerequisite: 2 years of secondary school preparation or its equivalent. Three hours weekly, and one period of laboratory practice.
Six credit hours.

French 15, 16 (formerly Fr. 15A, 16A Freshman)
Upper-Intermediate French
A rapid review of the fundamentals of the language, supplemented by literary readings and by practice in oral expression. Prerequisite: Better than average score on the placement test. Three hours weekly, and one period of laboratory practice.
Six credit hours.

1 On leave (1964-65)
French 17, 18 (formerly Fr. 21A, 22A Freshman)
Advanced French
The aim of this course is to acquaint the student with works representative of the most significant currents in French Literature from the Middle Ages to the Twentieth Century. Selected texts will be analyzed and discussed. Prerequisite: Outstanding performance on the placement test. Three hours weekly, and one period of laboratory practice.
Six credit hours.
French 21, 22 (formerly Fr. 15A, 16A Sophomore)
Upper-Intermediate French
A review of the fundamentals of the language, supplemented by readings in literary and cultural texts and by practice in oral expression. Prerequisite French 12. Three hours weekly, and one period of laboratory practice.
Six credit hours.

French 23, 24 (formerly Fr. 21B, 22B)
Advanced French
The purpose of this course is to study texts representative of the major periods of French Literature. Prerequisite: French 14.
Six credit hours.
French 31, 32 (formerly Fr. 71, 72)
Composition and Conversation.
The purpose of this course is to enable the student to achieve fluency in oral and written expression.
Six credit hours.
French 33, 34 (formerly Fr. 35, 36)
Survey of French Literature
The masters of French literature in a comprehensive survey. This course is mainly for students who have not had French 17, 18.
Six credit hours.
French 41 (formerly Fr. 43)
French Literature of the Middle Ages
An introduction to epic and lyric poetry, as well as to significant prose works.
Three credit hours.
French 42 (formerly Fr. 44)
The Sixteenth Century.
A study of the major writers of this period: Rabelais, Ronsard, Montaigne, etc.
Three credit hours.
French 51 (formerly Fr. 53)
Seventeenth Century Prose and Poetry.
A study of selected works of Descartes, Pascal, LaFontaine, Boileau, LaBruiyere, Bossuet, etc.
Three credit hours.
French 52 (formerly Fr. 54)
The Classical Theatre.
Tragedy and Comedy in the seventeenth century: Corneille, Racine, and Moliere.
Three credit hours.
French 61, 62 (formerly Fr. 17, 18)
French Thought from Rationalism to Romanticism.
Three credit hours.
French 63, 64 (formerly Fr. 45, 46)
The Age of Enlightenment.
A study of selected works of Montesquieu, Diderot, Voltaire, Rousseau, etc.
Six credit hours.

French 66.
Voltaire and his Time.
Three credit hours.
French 71 (formerly Fr. 51)
A History of Romanticism.
Three credit hours.
French 72 (formerly Fr. 73)
Nineteenth Century Novel.
The most significant novelists of the nineteenth century will be studied: Hugo, Stendhal, Balzac, Flaubert, Zola, etc.
Three credit hours.
French 73 (formerly Fr. 74)
Nineteenth Century Poetry.
A study of the major poetic movements of the nineteenth century.
Three credit hours.
French 81.
The Theatre in the Twentieth Century.
Three credit hours.
French 82.
The Novel in the Twentieth Century.
Three credit hours.
French 87.
The Existential Novel.
Three credit hours.
French 91, 92.
Tutorial for credit—Junior Year.
Eligible juniors concentrating in French may elect French 91, 92 for a full year course. Those who wish to enroll must obtain permission from the Chairman of the Department of Modern Languages and Literatures.
Six credit hours.
French 93, 94.
Tutorial for Credit—Senior Year.
Eligible seniors concentrating in French may elect French 93, 94 for a full year course. Those who wish to enroll must obtain permission from the Chairman of the Department of Modern Languages and Literatures.
Six credit hours.

II. GERMAN

German 11, 12.
Elementary German.
The aim of this course is the acquisition of a basic speaking, reading, and writing...
knowledge of idiomatic German. Three hours weekly, and one period of laboratory practice.  

Six credit hours.

German 13, 14 (formerly Ger. 15B, 16B)  
Lower-Intermediate German.
A review of the German language, supplemented by readings and by practice in oral expression. Prerequisite: 2 years of secondary school preparation or its equivalent. Three hours weekly, and one period of laboratory practice.  

Six credit hours.

German 15, 16 (formerly Ger. 15A, 16A Freshman)  
Upper-Intermediate German.
A rapid review of the fundamentals of the language, supplemented by readings and by practice in oral expression. Prerequisite: Better than average score on the placement test. Three hours weekly, and one period of laboratory practice.  

Six credit hours.

German 17, 18.1  
The Age of German Romanticism.

German 21, 22 (formerly Ger. 15A, 16A Sophomore)  
Upper-Intermediate German.
A review of the fundamentals of the language, supplemented by readings in literary and cultural texts and by practice in oral expression. Prerequisite: German 11, 12. Three hours weekly, and one period of laboratory practice.  

Six credit hours.

German 23, 24 (formerly Ger. 21B, 22B)  
Advanced German.
The purpose of this course is to study texts representative of the major periods of German Literature. Prerequisite: German 13, 14.  

Six credit hours.

German 31, 32.  
Introduction to German Culture and Civilization.
An intensive study through German texts of the cultural and historical background of the German-speaking peoples. Prerequisite: German 22, or 23, or its equivalent.  

Six credit hours.

German 33, 34 (formerly German 25)  
Composition and Conversation.
The aim of this course is the acquisition of a facility in both oral and written expression. Special emphasis is given to idioms and to genuinely German stiltastics. Weekly papers of some length are required.  

Six credit hours.

German 35, 36 (formerly Ger. 41, 42)  
Survey of German Literature.
This course presents a general survey of the development of German literature from its beginnings to the present. Lectures, accompanied by selected illustrative readings.  

Six credit hours.

German 37, 38 (formerly German 65, 66)  
German Linguistics.
A thorough introduction to general linguistics. Beginning with phonology, the course presents a systematic and scientific study of German morphology with historical and comparative references.  

Six credit hours.

German 39 (formerly Ger. 53)  
German Lyric Poetry.
A study of lyric poetry from the 18th century to the present. Emphasis is given to outstanding lyric poets, such as Günther, Klopstock, Goethe, Novalis, Eichendorff, Heine, Moerike, George, Rilke, Werfel, and others.  

Three credit hours.

German 61 (formerly Ger. 48)  
German Classicism.
A study of the Golden Age of German literature, with selected readings from leading authors, such as Klopstock, Wieland, Lessing, Herder, Goethe, Schiller, and others.  

Three credit hours.

German 62 (formerly Ger. 54)  
Schiller: Life and Works.
A study of Schiller's life and works. Extensive reading and analysis of his main dramas.  

Three credit hours.

German 63 (formerly Ger. 57)  
Goethe: Life and Works.
A study of Goethe as the dominating figure of German Classicism. His influence upon, and status in world literature. Extensive readings from his works.  

Three credit hours.

German 65, 66 (formerly Ger. 56)  
The German Drama.
A study of the German drama of the 18th and 19th centuries.  

Six credit hours.

German 71, 72.  
The Age of German Idealism.
A study of German literature and thought of the latter half of the 18th century.  

Six credit hours.

German 73, 74 (formerly Ger. 73)  
The German Novelle.
A study of the Novelle as a genre, its history, and foreign influences upon its development. Readings of selected works of such writers as Goethe, Kleist, Hoffmann, Tieck, Stifter, Keller, Meyer, Hauptmann, Mann, Kafka, and Brecht.  

Six credit hours.
German 75 (formerly Ger. 45)
German Romanticism.
The place of German Romanticism in European literature. Romanticism as a literary attitude, a philosophical position, and a school. Readings in Schlegel, Novalis, Brentano, Tieck, Hoffmann, Eichendorff, and others.
Six credit hours.

German 81, 82 (formerly Ger. 75, 76)
Modern German Prose.
A study of the prose writings of leading contemporary authors. Emphasis is given to the works of Hauptmann, T. Mann, Schnitzler, Hesse, Kafka, and Brecht.
Six credit hours.

German 83, 84.
Modern German Drama.
A study of the chief trends in contemporary German drama from Naturalism to the present. Emphasis is given to the works of Hauptmann, Schnitzler, Wedekind, Kaiser, Zuckmayer, Brecht, Frisch, Dürrenmatt, and others.
Six credit hours.

German 91, 92.
Junior Year Tutorial.
Eligible Juniors concentrating on German may elect German 91, 92 for a full year course. Those wishing to enroll must obtain permission from the Chairman of the Department of Modern Languages and Literatures.
Six credit hours.

German 93, 94.
Senior Year Tutorial.
Eligible Seniors concentrating on German may elect German 93, 94 for a full year course. Those wishing to enroll must obtain permission from the Chairman of the Department of Modern Languages and Literatures.
Six credit hours.

III. ITALIAN

Italian 11, 12.
Elementary Italian.
The aim of this course is the acquisition of a basic speaking, reading, and writing knowledge of idiomatic Italian. Three hours weekly, and one period of laboratory practice. (Given in response to sufficient demand.)
Six credit hours.

Italian 21, 22 (formerly Italian 15, 16)
Intermediate Italian.
A review of the fundamentals of the language, supplemented by readings in literary and cultural texts and by practice in oral expression. Prerequisite: Italian 11, 12. Three hours weekly, and one period of laboratory practice. (Given in response to sufficient demand.)
Six credit hours.

IV. RUSSIAN

Russian 11, 12.
Elementary Russian.
The aim of this course is the acquisition of a basic speaking, reading, and writing knowledge of idiomatic Russian. Three hours weekly, and one period of laboratory practice.
Six credit hours.

Russian 21, 22 (formerly Russian 15, 16 Sophomore)
Intermediate Russian.
A review of the fundamentals of the language, supplemented by readings in literary and cultural texts and by practice in oral expression. Prerequisite: Russian 11, 12. Three hours weekly, and one period of laboratory practice.
Six credit hours.

Russian 31, 32 (formerly Russian 21)
Composition and Conversation.
The purpose of this course is to enable the student to achieve fluency in oral and written expression.
Six credit hours.

Russian 33, 34 (formerly Russian 51, 52)
Russian Civilization.
Readings in Russian on aspects of Russian history, culture, and social thought, from Kievan times to the present. Special attention will be given to the history of Russian art, music and other non-literary forms of culture.
Six credit hours.

Russian 71, 72 (formerly Russian 31, 32)
Golden Age of Russian Literature.
Study of the prose and poetry of Russian 19th century literature. Representative readings from the works of Pushkin, Gogol, Turgeniev, Dostoevski, Tolstoy and Chekov. Special emphasis on the development of Russian realism in this period. Students will be required to write critical essays in Russian on selected works and authors.
Six credit hours.

Russian 81, 82.
Soviet Literature.
A story of Russian literature in the Soviet period. Readings in the works of Gorki, Blok Mayakovsky, Sholokov and Pasternak. Special attention given to the role of the Party and the shaping of “socialist realism”.
Six credit hours.

Russian 91, 92.
Junior Year Tutorial.
Eligible juniors concentrating in Russian may elect Russian 91, 92 for a full year course. Those who wish to enroll must obtain permission from the Chairman of the Department of Modern Languages and Literatures.
Six credit hours.
Russian 93, 94.
Senior Year Tutorial.
Eligible seniors concentrating in Russian may elect Russian 93, 94 for a full year course. Those who wish to enroll must obtain permission from the Chairman of the Department of Modern Languages and Literatures. Six credit hours.

V. SPANISH

Spanish 11, 12.
Elementary Spanish.
The aim of this course is the acquisition of a basic speaking, reading, and writing knowledge of idiomatic Spanish. Three hours weekly, and one period of laboratory practice.
Six credit hours.

Spanish 13, 14 (formerly Spanish 15B, 16B).
Lower-Intermediate Spanish.
A review of the Spanish language, supplemented by readings and by practice in oral expression. Prerequisite: 2 years of secondary school preparation or its equivalent. Three hours weekly, and one period of laboratory practice.
Six credit hours.

Spanish 15, 16 (formerly Spanish Freshman 15A, 16A).
Upper-Intermediate Spanish.
A rapid review of the fundamentals of the language, supplemented by literary readings and by practice in oral expression. Prerequisite: Spanish 11, 12. Three hours weekly, and one period of laboratory practice.
Six credit hours.

Spanish 21, 22 (formerly Spanish Sophomore 15A, 16A).
Upper-Intermediate Spanish.
A review of the fundamentals of the language, supplemented by readings in literary and cultural texts and by practice in oral expression. Prerequisite: Spanish 11, 12. Three hours weekly, and one period of laboratory practice.
Six credit hours.

Spanish 23, 24 (formerly Spanish 21B, 22B).
Advanced Spanish.
The purpose of this course is to study texts representative of the major periods of Spanish Literature. Prerequisite: Spanish 13, 14.
Six credit hours.

Spanish 31, 32 (formerly Spanish 71, 72).
Composition and Conversation.
The purpose of this course is to enable the student to achieve fluency in oral and written expression.
Six credit hours.

Spanish 33, 34 (formerly Spanish 41, 42).
Survey of Spanish Literature.
A comprehensive survey of the development of Spanish literature from its beginning to the present. Lectures and discussions, accompanied by selected illustrative readings.
Six credit hours.

Spanish 35, 36.
Survey of Spanish American Literature.
A general survey of the development of Spanish American literature from its beginnings to the present. Lectures and discussions, accompanied by selected illustrative readings.
Six credit hours.

Spanish 51, 52 (formerly Spanish 17, 18).
Spanish Literature of the Golden Age.
Six credit hours.

Spanish 53, 54.
Cervantes and the Drama of the Golden Age.
Intensive study of the Quijote, the Novelas ejemplares, and some of the outstanding plays of Lope de Vega, Calderon, Tirso de Molina, and Juan Ruiz de Alarcon.
Six credit hours.

Spanish 71, 72.
Nineteenth Century Novel.
A study of representative works of outstanding novelists of this century, including Alarcon, Galdos, Pereda, Valera, Palacio Valdes, and Pardo Bazan. Six credit hours.

Spanish 73, 74.
Modern Spanish Drama.
A study of the Spanish drama of the 19th and 20th centuries. Six credit hours.

Spanish 81, 82.
Twentieth Century Novel and Essay.
A study of some of the most representative works of writers such as Perez de Ayala, Baroja, Unamuno, Azorin, Valle Indan, Cela, Zunzunequi, Laforet, and Goytisolo.
Six credit hours.

Spanish 91, 92.
Junior Year Tutorial.
Eligible Juniors concentrating on Spanish may elect Spanish 91, 92 for a full year course. Those wishing to enroll must obtain permission from the Chairman of the Department of Modern Languages and Literatures.
Six credit hours.

Spanish 93, 94.
Senior Year Tutorial.
Eligible Seniors concentrating on Spanish may elect Spanish 93, 94 for a full year course. Those who wish to enroll must obtain permission from the Chairman of the Department of Modern Languages and Literatures.
Six credit hours.
Courses of Instruction

DEPARTMENT OF

Philosophy

Professors: Haran, Sarjeant, J. Shea
Associate Professors: Drohan, Harrington, Lynch (Chairman)
Assistant Professors: F. Callahan, J. D. Crowley, Lindgren, Pax

Philosophy 11.1, 11.2.
Philosophy of Man.

Through directed reading and dialogue, the student is led to reflect upon human experience, both personal and historical, and to seek therein a true understanding of man's nature, especially his freedom, spirituality, and unity.

Three credit hours.

Philosophy 21 (formerly Philosophy 41, 44).
Metaphysics.

This will include an analysis of real being as the proper subject of this science of Metaphysics, the transcendental character and analogous nature of real being in its first principles and application of potency and actuality. This study of real being will investigate constituent principles in the triple order of essence, of existence, and of activity. The course advances to a rational inquiry into the existence of the ultimate origin and purpose of real being and concludes to a Supreme Deity to whom we predicate knowledge, will, and providence.

Three credit hours.

Philosophy 22.
Epistemology.


The sources of human knowledge... Experience: Contact with extramental reality through sensation. Judgment and reasoning. The universal idea. The position of Relativism and Idealism on man's contact with an extramental world.

1 On leave (1964-65).

Philosophy 41 (formerly Philosophy 55).
General Ethics.

Nature, object, and necessity of Ethics; the ultimate end of man; beatitude; the human act; merit and accountability; the passions; virtue and vice; morality of human acts; the norm of morality. Historical views. The eternal law and the natural law; properties and sanctions of the natural law; nature and origin of moral obligations; Kant's categorical imperative; Conscience.

Three credit hours.

Philosophy 42 (formerly Philosophy 56).
Special Ethics.

Man's duty to his Creator, to himself, and to his neighbor. Right of ownership: Communism and Socialism; property; contracts; relations of capital and labor; trade unions; strikes. Social Ethics; nature and end of domestic society; matrimony; divorce; parental authority; education of the child. Civil Society: nature, end and origin; historical views; government; taxation; punishment; freedom of worship; freedom of the press; state education. International Law: meanings of Jus Gentium; foundation; mutual relations of nations; rights of commerce; rights of neutrals; nature and justice of war; arbitration.

Three credit hours.

Philosophy 45.1, 45.2 (formerly Philosophy 53, 54).
Philosophy of Man.

Three credit hours.
Philosophy 43 (formerly Philosophy 55).
General Ethics.
Three credit hours.

Philosophy 44 (formerly Philosophy 56).
Special Ethics.
Three credit hours.

Philosophy 51.1, 51.2 (formerly Philosophy 62).
History of Greek Philosophy.
A careful study of the main contributions of the ancient Greek philosophers to the western tradition. The student will be acquainted with the central problems of early Greek civilization and will then examine the efforts of Socrates, Plato and Aristotle to meet these problems. The central focus of the work of the course will be the reading of many of the works of Plato and Aristotle.
Three credit hours.

Philosophy 54 (formerly Philosophy 64).
Medieval Philosophy.
A study of medieval thought from Augustine to Meister Eckhart, with special emphasis on Boethius, Pseudo-Dionysius, Eriugena, St. Anselm, St. Bonaventure, St. Thomas, Meister Eckhart. Also, an analysis of the philosophical movement in the thirteenth century.
Three credit hours.

Philosophy 55 (formerly Philosophy 57, 58).
Modern Philosophy I
This course will consider the thought of Descartes, Spinoza, Leibnitz and Christian Wolff. An effort will be made to study the growth, implications and value of European Rationalism and the great British traditions of Locke, Berkeley and Hume. Finally, attention will be given to Kant's attempt to reconcile the conflicting tendencies of modern thought.
Three credit hours.

Philosophy 56.
Modern Philosophy II.
This course will study selected but significant thinkers of the nineteenth and twentieth centuries: Hegel, Schopenhauer, Nietzsche, Bergson and Whitehead. An attempt will be made to assess the influence of Romanticism, Irrationalism, Life-Philosophy and Relativity on the thought of the present day.
Three credit hours.

Philosophy 58.
American Philosophy.
A study of some of the leading thinkers in 19th and 20th century America, including Royce, Santayana, Peirce, James, and Dewey, with special stress on the original works of these men.
Three credit hours.

Philosophy 60 (formerly Philosophy 66).
Contemporary Philosophy.
A survey of the outstanding philosophical thinkers of the late 19th and 20th centuries, including Bergson, James, Dewey, Whitehead, Russell, Jaspers, Sartre, and Marcel.
Three credit hours.

Philosophy 61 (formerly Philosophy 59).
Plato.
His life; influence of Socrates. Founding of the Academy and its spirit. An analytical study of selected dialogues.
Three credit hours.

Philosophy 67 (formerly Philosophy 94).
Survey of Scholasticism.
Three credit hours.

Philosophy 72 (formerly Philosophy 94).
Spinoza.
Man seeking God. One Substance, i.e., God. Will is a necessary cause, not free. The problem: true liberty and happiness. His link is not religious, but rational. Modes are Thought and Extension of God. Pantheism.
Three credit hours.

Philosophy 76 (formerly Philosophy 58).
Kantian Critique.
A reading course in the primary sources, concentrating on the first and second Critiques; the relationship between these two works and their setting in the whole Kantian effort. The meaning of reason and the primacy of the practical use of reason. The influence of Kant on later philosophical writers.
Three credit hours.

Philosophy 78 (formerly Philosophy 60).
Marxism.
The union of the Hegelian Dialectic with the Materialism of Feuerbach. The process of development as it is found in the economic interpretation of history, the labor theory of value, surplus-value, the dictatorship of the proletariat, the classless society.
Three credit hours.
Man's destiny gives meaning of life. He aspires toward a goal that is not merely a natural one. Considers man not in his metaphysical nature but in concrete reality. Metaphysical Analysis—reaches content of Will in action where man incarnates himself in the concrete. Supernatural in all Wills.

Three credit hours.

Philosophy 82.
Lonergan's Theory of Insight.


Three credit hours.

Philosophy 85 (formerly Philosophy 69).
Phenomenological Existentialism.

An examination of the origins and bases of the contemporary phenomenological movement. The growth of existentialism from phenomenology. The theistic and atheistic strands of the movement. Current influences of existentialism in the areas of psychology, sociology and religious thought.

Three credit hours.

Philosophy 91 (formerly Philosophy 67).
Philosophy of Mathematics.

A critical examination of Logic and especially of the structure of contemporary mathematics, with emphasis on presuppositions, methodology, intelligibility and noetic character, along with some current philosophical orientations. Prerequisite: Math. 11, 12 or equivalent.

Three credit hours.

Philosophy 92 (formerly Philosophy 68).
Philosophy of Science.

A study of the character of contemporary empirical science, stressing presuppositions, methodology, and noetic value. Mathematically science and intelligibility. Foundation of model-theory in the behavioral and life sciences. Relation between philosophical enrichment arising from a mode of dependence upon empirical data and scientific theory and a properly philosophical confrontation of nature.

Three credit hours.

Philosophy 94.
Philosophy of Religious Experience.

An examination of religious experience, precisely as religious experience. The nature of this experience; the conditions, epistemological, under which this experience is meaningful. Various approaches to the Divine Reality. The meaning of God in human experience.

Three credit hours.
COURSES OF INSTRUCTION

DEPARTMENT OF

Physics

Professors: Connolly, T. Smith
Associate Professors: Guindon, Gunter, Kennedy (Chairman), R. MacDonnell, Sarup
Assistant Professor: Kaseta

The curriculum leading to the degree of Bachelor of Science in Physics is designed to provide a thorough foundation in the principal branches of physics as an immediate preparation for professional work in the field and for further study leading to advanced degrees in science and engineering.

PHYSICS

Physics 11.
General Physics.
An introduction to the basic concepts of physics using calculus. Three lectures and one (two-hour) laboratory period.
Four credit hours.

Physics 12.
General Physics.
Continuation of Physics 11. Three lectures and one (two-hour) laboratory period.
Four credit hours.

Physics 13.
General Physics.
Introduction to the basic concepts of physics (without calculus). Three lectures and one (two-hour) laboratory period.
Four credit hours.

Physics 14.
General Physics.
Continuation of Physics 13. Three lectures and one (two-hour) laboratory period.
Four credit hours.

Physics 27 (formerly Phys. 22).
Elementary Modern Physics.
Special relativity. Wave-particle dualities; atomic structure and spectra; x-rays. Particle detectors and accelerators. Nuclear structure and reactions. Molecular and solid-state physics. Three lectures and one (three-hour) laboratory period. Prerequisite: Ph. 11, 12.
Four credit hours.

Physics 28 (formerly Phys. 21).
Geometrical and Physical Optics.
"Optics" as used in this course covers the electromagnetic spectrum from ultraviolet through the visible and infrared to microwaves. Geometrical optics is largely an extension of principles developed in previous courses. The Physical or Wave optics include such topics as interference, diffraction, and polarization. Covered also are the fundamental principles involved in the generation and production of the radiation in this spectral band. Three lectures and one (three-hour) laboratory period. Prerequisite: Ph. 11, 12.
Four credit hours.

Physics 41.
General Physics.
This course is a specific recognition by the department of the importance of physics to non-science majors. The course assumes satisfactory completion of the algebra and geometry courses normally taken in high school. This is not a survey course in the sense that all of physics is covered lightly. Rather a number of selected topics of basic relevance to those whose life work will not be in science are discussed. The topics are selected from the physical fields of mechanics, heat, sound, light, electricity, magnetism, atomic, nuclear, and astrophysics. Two lectures and one (two-hour) laboratory or three lectures per week.
Three credit hours.
Physics 42.
General Physics.
Continuation of Physics 41. Two lectures and one (two-hour) laboratory period or three lectures per week. Three credit hours.

Physics 46 (formerly Phys. 43).
Introduction to Astronomy.
By means of lectures and illustration, coupled with some observation and laboratory work, the student is given a view of the universe in which we live. The course is developed by tracing the investigations which lead to the presently known picture of the world. Elective for non-science majors.
Two lectures and one laboratory period. Three credit hours.

Physics 47.
Theoretical Mechanics 1.
Newton's laws of motion, one dimensional motion, linear systems, three dimensional kinematics & dynamics, central fields, motion of a system of particles, collision problems, N body problem. Three lectures. Prerequisite: Ph. 11, 12. Three credit hours.

Physics 48.
Theoretical Mechanics II.
Continuation of Physics 47. Moving coordinate systems, mechanics of continuous media, wave motion, normal modes, generalized coordinates, constraints, Lagrange's and Hamilton's equations, rigid body motion, inertia and stress tensors, small vibrations. Three lectures. Prerequisite: Ph. 47. Three credit hours.

Physics 49.
Modern Physics I.

Physics 50.
Modern Physics II.

Physics 57 (formerly Phys. 51).
Electricity and Magnetism I.

Physics 58 (formerly Phys. 56).
Electricity and Magnetism II.

Physics 63 (formerly Phys. 62).
Electronics.
A/C circuit analysis and filter theory. A study of the characteristics of semiconductor diodes, transistors, vacuum and gas filled electron tubes. The basic circuits in which these devices are used. Three lectures and one (three-hour) laboratory period. Prerequisite: Ph. 57. (Not given 1964-1965). Four credit hours.

Physics 67.
Advanced Modern Physics I.
Introduction to quantum mechanics: development of Schroedinger theory and solutions to time independent equation for the free particle, step potentials, barrier potentials, infinite and infinite square wells, simple harmonic oscillator problems, perturbation theory. Atomic physics: one electron atoms. Three lectures. Prerequisite Ph. 24, 47, 48. Three credit hours.

Physics 68.
Advanced Modern Physics II.
Continuation of Physics 67. Magnetic moments, spin and relativistic effects; identical particles; multielectron atoms, Zeeman effect, hyperfine structure, transition rates; x-rays (production, scattering, absorption, Dirac theory of antiparticles). Nuclear physics: nuclear models, radioactive decay, nuclear reactions, nuclear forces, nuclear instrumentation, counting statistics. Three lectures and one (three-hour) nuclear physics laboratory period. Prerequisite Ph. 67. Four credit hours.
Physics 69.
Thermophysics I.

Introduction to thermodynamics, thermodynamic systems, state variables (for ideal and real gases), Laws of Thermodynamics and their consequences. Low temperature and liquefaction of gases. Maxwell distribution of velocity, equipartition of energy, specific heats and transport-coefficients.
Prerequisite Ph. 11, 12.

*Three credit hours.*

Physics 70.
Thermophysics II.

Prerequisite Ph. 47, 67, 69.

*Three credit hours.*

Physics 75.1-75.2.
Seminar.

The Physics Seminar, a circle of the faculty and the more advanced students majoring in physics, meets weekly.

*Three credit hours.*

Physics 77.
Undergraduate Research.

A program of supervised research above and beyond the level of regular course offerings. The work may be theoretical and/or experimental and is designed to bridge the gap between the undergraduate and postgraduate levels.

*Three credit hours.*

Physics 78.
Undergraduate Research.

Continuation of Physics 77 for the second semester.

*Three credit hours.*
Courses of Instruction

DEPARTMENT OF

Psychology

Associate Professors: Centi, Zlody
Assistant Professors: O’Halloran (Chairman), Rosenkrantz

The course of studies in Psychology is made up of a core curriculum, electives in Psychology, and required courses from allied fields arranged to provide the student with the undergraduate preparation necessary for advanced study in this area and the breadth of view consonant with the liberal arts tradition of Holy Cross. Contemporary General Psychology, History and Systems of Psychology, Experimental Psychology; laboratory; Physiological Psychology, and Statistics constitute the core curriculum. Courses from allied fields include: Biology, Mathematics, Physics, Sociology, and Cultural Anthropology.

Individual experimental projects, seminars, and tutorials foster a research spirit and student-professor exchange.

Psychology 41.
Contemporary General Psychology.
A general introduction to the principles of psychology as operative in motivation, learning, perception, and thinking. Application of these principles to areas of emotion, social processes, assessment of abilities, personality, and biological substrates of behavior is also stressed. Three credit hours.

Psychology 43.
Statistics.
An introduction to statistical methods in the analysis and interpretation of psychological data: measures of central tendency, variability, correlational techniques and reliability of statistical measures. A brief survey of factor analysis and analysis of variance. Three credit hours.

Psychology 44.
History and Systems of Psychology.
The origin of Psychology and the development of theoretical systems within Psychology are assessed. The main psychological systems: Introspectionism, Behaviorism, Gestalt School, Psychoanalysis, and Hormic Psychology are treated in their historical development. Three credit hours.

Psychology 45-46.
Experimental Psychology: Laboratory.
The methods and techniques of Experimental Psychology and their application to various content areas are treated. Emphasis is placed on psychophysical methods as they apply to the study of sensation, perception, memory, and learning. The laboratory includes a number of experiments with the more important pieces of apparatus used in psychological investigations. Six credit hours.

Psychology 52.
Physiological Psychology.
The structure and function of the nervous system and endocrine glands are studied with reference to man's behavior. The physiological and neural aspects of motivation, emotion, learning, sensation, and perception are emphasized. Three credit hours.

Psychology 53.
Psychology of Learning.
A presentation and evaluation of the principles of learning theory. Conditioning, transfer of training, and development of human learning and memory are discussed. Three credit hours.
Psychology 54.  
**Abnormal Psychology.**  
A general introduction to the origin, development, classification, diagnosis, and treatment of psychological ills. A history of the treatment of mental illness and the theoretical bases of different schools of therapy are surveyed.  
*Three credit hours.*

Psychology 56.  
**Psychological Testing.**  
A history of psychological testing and the rationale of test construction and administration are treated. A critical evaluation of various psychological tests is offered.  
*Three credit hours.*

Psychology 57.  
**Social Psychology.**  
A treatment of the role of social and cultural factors in individual behavior. The following topics are included: attitude development and change, prejudice, language and communication, small group processes, and culture and personality.  
*Three credit hours.*

Psychology 58.  
**Developmental Psychology.**  
An analysis of the factors underlying behavior at different stages of development with an examination of the role of maturation, motivation, experience, and culture in the sequences of changes in psychological processes.  
*Three credit hours.*

Psychology 60.  
**Theories of Personality.**  
A summary and evaluation of the major contemporary theories of personality are presented. Among the theories discussed are those of Freud, Jung, Sullivan, Lewin, Allport, Rogers, and Murphy.  
*Three credit hours.*

Psychology 61.  
**Psychology of Personality.**  
The methods used in studying personality and the major issues in personality research will be discussed: cognition, motivation, activity-passivity, the conscious and the unconscious.  
*Three credit hours.*

Psychology 62.  
**Differential Psychology.**  
The nature, extent, causes, and manifestations of individual differences are objectively evaluated. Group differences as shown in national, cultural, subnormal, normal and above normal groupings are also considered.  
*Three credit hours.*

Psychology 63.  
**Psychology of Feeling and Emotion.**  
A treatment of the experimental work in the field of feeling and emotion, the various theories of emotion, the methods of observing and recording emotional expression.  
*Three credit hours.*

Psychology 65.  
**Industrial Psychology.**  
The application of Psychology to an industrial setting is considered. Topics include: job evaluation, accidents and safety, human engineering, motivation, and satisfaction.  
*Three credit hours.*

Psychology 78.  
**Seminar: Current Problems in Psychology.**  
Qualified students are invited by the Psychology faculty to join this seminar. The seminar is conducted by the staff and students are required to participate actively through outside readings and presentation of papers.  
*Three credit hours.*

Psychology 80.  
**Research Projects.**  
Students who are especially interested and who have sufficiently high grades may assist faculty members in their research. Their assistance may take the form of library research, bibliography organization, data computation and analysis, and administration of experiments. Under faculty direction, students may undertake their own projects.  
*Two credit hours.*
Courses of Instruction

DEPARTMENT OF

Sociology

Professors: Facey, Imse (Chairman)  
Associate Professor: R. Burke  
Assistant Professor: Coffee  
Instructors: Fallon, Johnson

The department presents a scientific approach to the understanding of human society. After the introductory course in general sociology, the emphasis is upon methods of research and sociological theory, together with substantive studies and theoretical developments in specified areas.

The department maintains a laboratory-workshop which serves its students as a center for their research operations, and a seminar room which also contains reference works. Honors students participate in seminars, tutorial reading programs and individual research projects oriented toward independent study.

Sociology 11, 12.  
General Sociology.  
The introduction to sociological analysis of social groups, social processes, culture and social change.  
Six credit hours.

Sociology 17, 18.  
The Science of Sociology.  
Six credit hours.

Sociology 21.  
Social Statistics.  
The basic statistical concepts needed for a better understanding of behavior. Collecting, classifying and interpreting data through the use of measures of central tendency, variability, correlation, standard scores and sampling are studied. Graphical presentation of material and formulae applicable to test material are given. Three credit hours.

Sociology 41.  
General Sociology.  
A single semester introductory course for sociology majors who have not taken Sociology 11 and 12. Three credit hours.

Sociology 42.  
General Sociology.  
Elementary sociological analysis offered to students who are enrolled in the Department of Economics. Three credit hours.

Sociology 45.  
Race and Ethnic Relations.  
An analysis of race, nationality, and religious differences and similarities. Particular attention is given to the impact of such differences on the operation of the basic institutions in a society and to the impact on social change. Three credit hours.

Sociology 46.  
Social Stratification.  
The structure of society, concerning itself with social differentiation, social classes, mobility, and the effects of such differentiation on various social institutions. Three credit hours.

Sociology 55.  
Social Psychology.  
This course aims to acquaint students with the role of social and cultural factors in the behavior of individuals. Included will be such topics as: attitude development and change, prejudice, language and communication, small group processes, the relationship of culture and personality, and interpersonal perception. Three credit hours.

Sociology 56.  
Sociology of Religion.  
Functional and phenomenological approaches to the Sociology of Religion. Reli-
igious experience, its institutionalization, and the consequent dilemmas. Religion in contemporary American society.

Three credit hours.

Sociology 62.
Contemporary Sociological Theory.

An elaboration of a frame of reference for the analysis of social systems in terms of contemporary theory.

Three credit hours.

Sociology 64.
Social Organization.

Formal organizations and their informal dynamics. Bureaucracies in contemporary industrial, political and military systems.

Three credit hours.

Sociology 65.
Class Conflict and Social Change.

The dichotomous and the integral models of society considered in relation to the explanation of social change in industrial society.

Three credit hours.

Sociology 66.
The Family.

The family as a social system, functionally and historically, with special reference to American urban life. Family process, culture, and personality development. The family and related social systems.

Three credit hours.

Sociology 70.
Personality, Society, and Culture.

An investigation and analysis of recent writings from psychology, anthropology and sociology focusing on an interdisciplinary understanding of personality and social systems; the structural-functional analysis of social systems and the determinants of personality formation.

Three credit hours.

Sociology 71.
The Soviet Social System.

A sociological analysis of the political, economic and related social systems of an industrializing society; ideological and international significance of major developments.

Three credit hours.

Sociology 72.
History of Social Theory.

A descriptive and critical study of the development of sociological theory from Comte to the present.

Three credit hours.

Sociology 73.
Industrial Sociology.

Social organization of industry; functions of members of industrial organization, status, social structure; patterns of interaction, and relations of industry and society.

Three credit hours.

Sociology 74.
Population.

Population distribution, composition, and growth in North America and Eurasia; trends in fertility and mortality; migration; population prospects and policies.

Three credit hours.

Sociology 76.
Cultural Anthropology.

An introductory survey of the field. Comparative analysis of social organizations. Applied anthropology.

Three credit hours.

Sociology 77.
Elementary Social Research.

Introduction to the philosophy of science; research design and the basic techniques of research.

Three credit hours.

Sociology 78, 79.
Advanced Social Research.

Individual research.

Six credit hours.

Sociology 91, 92.
Seminar and Tutored Reading.

Courses at Clark University open to Holy Cross students this year:

Clark numbers: Soc. 20b Crime, Law, and Society
Soc. 24b The Community.
Courses of Instruction

DEPARTMENT OF

Theology

Professors: W. Casey, W. J. V. E. Casey, O'Connor
Associate Professors: Burke, Delaney, Duff, J. R. Sullivan, Walsh
Assistant Professors: G. Barry, Donahue, Donnelly, Lindsay, J. McGrady
Instructors: Brooks (Chairman), Crowley, W. Shea
Visiting Professor: McGovern
Teaching Fellows: Clifford, Joyce, O'Keefe

The curriculum in theology is aimed at developing the student's understanding within the certitude of faith. Since the starting-point of any contemporary theological investigation should be rooted in a Biblical theology based on a sound and reliable exegesis, theology courses in the first two years introduce the student to a study of Old Testament literature as a theological expression of faith, and to an analysis of the various books of the New Testament seen as God's self-disclosure in Christ. Further courses in systematic theology serve to enrich and supplement this basic formative force in the theological thinking of the student.

Seminars, tutorial reading programs and individual research projects are available to the qualified student by arrangement with the Department Chairman.

Theology 11.
Theology of the Old Testament.
A study of Old Testament literature in relation to the history of Israel, with special emphasis upon its theological expressions of faith. *Three credit hours.*

Theology 12.
A critico-historical introduction to the various books of the New Testament seen as a progressive revelation of God to man in Christ. *Three credit hours.*

(Not offered 1964-65).

Theology 171.
The Archaeology of Palestine and the Old Testament.
A tutorial investigating the relationships between archaeological investigations during the past century and the Old Testament milieu and tradition. *Three credit hours.*

Theology 191.
A Theology of Old Testament Themes.
A seminar investigating various ancient Israelite concepts such as creation, the Exodus, covenant, sin, faith, hope and the search for wisdom. *Three credit hours.*

Theology 21.
Theology of Church and Sacraments.
An historico-theological study of the nature, structure and mission of the Church, especially as it is depicted in the Constitution *De Ecclesia* approved by the Fathers of the II Vatican Council. A survey of the Sacraments seen as living, personal encounters with God, as continuations into the present of the priestly, salvific activity of Christ. *Three credit hours.*

Theology 41.
Systematic Theology.
An analysis of the principles and theories of Christian theology as applied to the areas

1 Special Studies Program. Cf. p. 12.
of the Incarnation, Redemption and grace. Emphasis is placed on the doctrine of Sacred Scripture and the writings of contemporary theologians.

Three credit hours.

Theology 72.
Developments in Contemporary Christianity.

An exploration of the intellectual contribution made by twelve Christian thinkers to the development of the Christian tradition. Martin Buber, the Jewish philosopher of religion, is also considered because of his impact upon contemporary Christian thinkers.

Three credit hours.

Theology 73.
Ecumenism.

An examination of the concept of ecumenism and current ecumenical problems. Particular consideration is given to the Second Vatican Council's Decree on Ecumenism (de Oecumenismo).

Three credit hours.

Theology 74.
Special Ecumenical Considerations.

An application of Catholic principles of Ecumenism to specific situations, such as the layman in the Church, the hierarchy, education, religious liberty, etc.

Three credit hours.

Theology 75.
Non-Catholic Christian Denominations.

A study of the origins, development and doctrines of the more prominent Protestant denominations on the American scene.

Three credit hours.

Theology 77.1.
Christian Unity.

A discussion of the Protestant Ecumenical Movement and its development into the World Council of Churches: the main Christian denominations, their origins, the causes of division and the problems confronting them in their efforts to effect a union with themselves and with the Roman Catholic Church.

Three credit hours.

Theology 77.2.
Christian Unity.

A more detailed investigation into the historical, philosophical and theological causes of division among Christian denominations.

Three credit hours.

Theology 81.
Comparative Religion.

An introduction to animistic, monotheistic, functionalist and psychoanalytic theories of religion. A sampling of non-Catholic religious systems.

Three credit hours.

Theology 82.
Origins of Social Catholicism.


Three credit hours.

Theology 83.
A Theology of Covenant.

A textual analysis of the origin, meaning and evolution of the covenant concept as found in both the Old and New Testaments.

Three credit hours.

Theology 84.
The Social Dimensions of Christianity.

A study of the spiritual solidarity of mankind and its implications: the Kingdom of God as foreshadowed, as preached, as founded, as fulfilled; its misinterpretations in utter eschatologism or in secular social reform; its characteristics of universalism, equality, mutual aid and respect for the lowly as these should be evidenced in attitudes on contemporary issues confronting American laymen.

Three credit hours.

Theology 88.
The Development of Christian Worship.

The nature of worship. The sources and historical development of Eucharistic liturgies. The modern reform of Christian worship.

Three credit hours.
The College conducts courses in chemistry for graduate students, leading to the Master of Science degree. Registration for this degree is open only to students who hold the Bachelor degree from approved colleges and technical schools. Candidates for admission should file applications with Director before the fifteenth of March each year. In support of application each candidate should forward a transcript of his undergraduate record. Furthermore, the applicant should provide that letters of recommendation be supplied by two former college chemistry professors. In the case of successful applicants, a supplemental, completed transcript, with record of degree received, should be sent after graduation. Information as to Fellowships available in the graduate department should be requested from the Director of the Graduate Division, Department of Chemistry.

REQUIREMENTS FOR DEGREE

To become a candidate for the Master of Science degree a student must fulfill the following conditions:

1. Attend and complete, with work of high quality, graduate courses amounting to not less than thirty semester credits, of which at least ten must be obtained in laboratory courses.

2. Present an experimental thesis in his major field, which shall include the results of original research and evidence of high scholarship.

3. Defend his thesis in an oral, public examination conducted by the Chairman and the Staff of the Department.

Recommendation for the degree does not, however, follow automatically upon the completion of courses and examinations, but only on the affirmative judgment of the Department in each individual case.

ADMISSION TO GRADUATE WORK

Applicants for graduate work should present a minimum of eight undergraduate credits in each of the following subjects: differential and integral calculus (eight credits total), physics, general principles, organic chemistry, analytic chemistry and physical chemistry. Laboratory work should be included in all of these courses except the calculus. Other laboratory courses in chemistry are desirable. Accordingly, applicants who do not
present the following undergraduate courses may be required to take them in whole or in part, along with or antecedent to their regular graduate work. Cases will be judged individually from the record of the undergraduate work.

Chemistry 58 Advanced Physical Chemistry (see page 45)

Chemistry 61 Advanced Organic Chemistry (see page 45)

When these courses or their equivalents are offered, only one year of residence will be the normal requirement for acquiring the Master of Science degree.

Each candidate will be required to pass a reading examination in chemical German. Substitution of another modern language may be arranged on consultation with the Director of the Graduate Division.

GRADUATE COURSES

Chemistry 201.
Advanced Inorganic Chemistry.

The lectures in this course comprise a study of the structure of inorganic compounds and the interrelations of elements and compounds according to the periodic chart. Valence studies are stressed and the ideas of Werner, Pauling, Price and current workers in the field are emphasized. The laboratory exercises include inorganic preparations, instrumental, analytic and advanced methods, such as liquid ammonia syntheses and the like. Industrial analysis is touched upon.

Two lectures and two triple-hours of laboratory per week for one semester. 
Five credit hours.

Chemistry 203.

This course will be devoted mainly to the more advanced types of organic preparations, their scope, limitation and stereochemical consequences. Great attention will be paid to the methods used to increase the selectivity of synthetic procedures. It is expected that the laboratory exercises will be geared to current organic research in the department.

Two lectures and two triple-hours of laboratory per week for one semester.
Five credit hours.

Chemistry 207.
Chemical Thermodynamics.

This course develops the principles of chemical thermodynamics and includes applications. The fundamentals of statistical mechanics are also taught. Laboratory work comprises experiments in advanced physical chemistry with emphasis on thermochem-
RESEARCH FOR MASTER'S DEGREE

afternoons per week for two semesters. Students will participate in a weekly colloquium with their directors. Six credit hours.

Chemistry 214. The Literature of Chemistry.

The course is designed to awaken the student to the kinds of questions that send a chemist to the library, to acquaint him with the resources of a typical chemical library and to give him experience in locating efficiently specific kinds of desired information. The course is informal with no recorded credit. It is a preparation for the literature search that will be done in connection with the student’s experimental investigation.

FELLOWSHIPS

In 1926, the College of the Holy Cross established six graduate fellowships in Chemistry. At present each fellowship carries free board, room and tuition or its pecuniary equivalent. Fellows are required to spend from four to twelve hours per week in undergraduate laboratory instruction. These fellowships are offered to graduates of colleges or technical schools, who are properly qualified to undertake graduate work in chemistry. Applications must be filed with the Chairman for Chemistry by the fifteenth of March each year. Applications received after March 15 may also be considered.
Institutes

The College is conscious of the need to contribute of its intellectual resources and the skills of its personnel to the community in which it lives. Matching its educational ideal of civic responsibility, as a civic enterprise it offers Summer Institutes for secondary school teachers in Mathematics, Science and Modern Languages. During the school year it offers In-Service Training for teachers in the City of Worcester school system.

The Institute of Industrial Relations, conducted during the evening hours, and for which no academic credit is given, aims at the intellectual and moral enrichment of the life of participants from management and labor unions. Stress is placed on knowledge of economic conditions in industry, current labor problems, and labor law.

SUMMER INSTITUTES IN MATHEMATICS AND SCIENCE
June 29—Aug. 7, 1964

The following programs for teachers of junior and senior high school mathematics and science were offered by the College of the Holy Cross with the support of the National Science Foundation.

MATHEMATICS INSTITUTE:
Dr. Vincent O. McBrien, Director

GROUP I:
Prerequisite: At least one year of college mathematics.

Math S 11.
Introduction to Algebraic Concepts:
The purpose of this course is to provide a background in those topics which are essential for the study of mathematics beyond secondary school and to show how these topics are related to the traditional content of secondary school mathematics. Topics to be covered include the basic algebra of sets, functions and the algebra of functions, and basic algebraic systems.

Math S 12.
Introduction to Analysis:
The purpose of this course is to provide teachers with an up-to-date introduction to the calculus. This course is taught in conjunction with Math S 11 and includes the study of real functions, neighborhood topology of the line, continuous functions, the derivative functions, the definite integral and the fundamental theorem of the calculus.

Math S 13.
Discussion Periods:
Each member of the Institute will be expected to take part in a discussion period which will link the course matter with the traditional secondary school mathematics. The theme in several sections will be based on material written by the School Mathematics Study Group.

GROUP II:
Prerequisite: Background equivalent to Group I courses.
Math S 16.
Introduction to Probability:
The purpose of this course is to provide teachers with a background for the teaching of probability and statistical inference. Topics to be covered include sample spaces, probability and measure, the Bernoulli distribution, the normal curve, Markov chains and linear programming.

Math S 17.
Introduction to Linear Algebra:
The purpose of this course is to provide teachers with a background for the teaching of algebra, geometry and matrix algebra. Topics to be covered include groups, fields, linear transformations, systems of linear equations and the algebra of matrices. Geometric motivation will be emphasized.

Math S 13.
Same as Group I.

Staff of the Institute
Daniel G. Dewey, M.A.
Vincent O. McBrien, Ph.D.
John R. McCarthy, M.A.
Patrick Shanahan, Ph.D.
Alice S. Carr, A.B.
Peter Perkins, M.A.

SCIENCE INSTITUTE:
Rev. Robert B. MacDonnell, S.J., Director

(Biological with each course will be a three-hour laboratory period four afternoons a week.)

BIOLOGY:
S 11
Cellular Biology.
The aim of this course it to provide recent knowledge of the organizational and operational aspects of living matter from the fields of biochemistry, cytology, and physiology. The themes and topics of the course will in large measure be based on the BLUE VERSION of the BSCS “High School Biology.”

S 14.
Evolution, Genetics, and Man.
Topics to be covered will include: Darwin’s conception of Natural Selection; evidences of evolution; origin of life; the gene as the basis of evolution; microevolution; natural selection and adaptation; evolution of sex; molecular basis of evolution.

CHEMISTRY:
S 15.
Modern Concepts in Chemistry.
The topics covered will include (a) the structure of the atom, types of valence, geometry of molecules, and the periodic table; (b) electrochemical and electrolytic cells; (c) introductory notions concerning the energy involved in a chemical reaction. Approximately ten lectures will be devoted to each set of topics and the approach will be strongly “CBA”-orientated. The laboratory will also be “CBA”-orientated.

Selection will be limited to participants who give convincing evidence of a serious interest in the “Chemical Bond Approach” chemistry course.
PHYSICS:
S 15.
Fundamental Concepts in Physics.

The topics and manner of treatment will be designed to provide background material for the teaching of high school Physics according to the plan of the Physical Science Study Committee. It will consist of a review of the more difficult topics of Mechanics, Electricity, and Modern Physics.

Staff of the Institute
Biology:
Robert S. Crowe, Ph.D.
William A. Campbell, M.S.
DeWolf Merriam, M.S.

Chemistry:
William F. O'Hara, Ph.D.
Raymond S. Martin, M.S.
Miss Helen W. Crawley, M.A.

Physics:
Roy C. Gunter, Jr., Ph.D.
Everett F. Learnard, A.B.

1965 SUMMER INSTITUTES

With the support of the National Science Foundation, Summer Institutes in Mathematics, Electronics, and the Physical and Life Sciences will be offered June 28 to August 6, 1965.

For further information, please contact Rev. Robert B. MacDonnell, S.J., N.S.F. Coordinator.
Academic Policies

GENERAL

The college year begins in the third week of September and ends on the second Wednesday of June, with recess periods at Christmas and Easter. It is constituted of two semesters of sixteen weeks each.

A semester hour represents a course which meets once a week throughout the semester. In ordinary lecture courses, the class period is of fifty minutes duration; in all laboratory work, the length of a period required to give a semester hour credit is twice the length of the ordinary lecture period. There are nine class periods each day, Monday through Friday. Class or laboratory periods begin at 8:30 A.M. Students are required to attend all academic and chapel exercises.

Grading System

A student's standing will be determined by the results of examinations, classroom work and assignments. The quality of the student's work will be graded as follows:

- A
- B+
- B
- C+
- C
- D+
- D
- F
- FA
- WF
- I
- ABS
- WP
- COND

Excellent
Good
Fair
Low Pass
Failure
Failure because of excessive absence
Withdrawal from course while failing
Incomplete
Absence from Final Examination
Withdrawal from course while passing
Condition (Freshmen only) (Applies first semester only)

Incomplete grade may be removed with approval of the Dean by submission of work not later than one week after the final examination in the course.

Absence from Final Examination—approval of Dean is necessary for deferred examination.

A semester grade of D is a Passing Grade.

A semester grade of F is a Deficient Failure Grade. A student who fails to attain a semester average of D in any course is deficient in that course and, to obtain credit for it, he must repeat the course.

There will be but one grade each semester for each course for each student. This grade will be submitted to the Registrar after the final examination. This grade will
be the composite grade for recitations, reading assignments, tests, etc., and the final examination. In arriving at the composite grade approximately one-third weight will be given to the final examination.

Grades will not be translations of numerical scores, but will be interpreted in the following context:

a) Well organized preparation and presentation of subject matter.
b) Correct oral and written usage of English.
c) Successful completion of course assignments, tests, readings, examinations.
d) Constant attendance and classroom application.
e) Initiative.

Reports of academic grades are sent to parents or guardian at the end of each semester.

Quality Points

Quality Point in a given course is the product of the number of credits assigned to the course, multiplied by the numerical value given to the grade achieved. Quality Point Average or Index is determined by dividing the total number of quality points achieved in all courses by the number of credit hours assigned to these courses.

Grade points determine the student's general average and measure the quality of the student's work as credit hours measure the quantitative requirements.

The grade “A” is assigned 4.0 points for each credit hour completed.
The grade “B+” is assigned 3.5 points for each credit hour completed.
The grade “B” is assigned 3.0 points for each credit hour completed.
The grade “C+” is assigned 2.5 points for each credit hour completed.
The grade “C” is assigned 2.0 points for each credit hour completed.
The grade “D+” is assigned 1.5 points for each credit hour completed.
The grade “D” is assigned 1.0 points for each credit hour completed.
The grade, “F,” “FA,” “WF,” is assigned 0 for each credit hour.

Honor Grades

The following criteria determine honor grades:

Graduation Honors

<table>
<thead>
<tr>
<th>Summa Cum Laude:</th>
<th>Cumulative average of 3.87 or above</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magna Cum Laude:</td>
<td>Cumulative average of 3.70-3.86</td>
</tr>
<tr>
<td>Cum Laude:</td>
<td>Cumulative average of 3.50-3.69</td>
</tr>
</tbody>
</table>

Dean's List

<table>
<thead>
<tr>
<th>First Honors:</th>
<th>A non-cumulative average of 3.7 or above</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second Honors:</td>
<td>A non-cumulative average of 3.5-3.69</td>
</tr>
</tbody>
</table>
Requirements for Advancement

To be eligible for academic advancement a student must be free of all deficiencies and must meet the required Q.P.I. for each semester (Cf. below).

A student who will remove a deficiency by achieving a satisfactory grade (C or better) in an approved summer school will not be liable to academic probation, provided his Q.P.I. meets the requirement set for each semester. Deviation from this rule will be allowed by the Committee on Academic Standing only in cases of extreme hardship.

Freshman Year

Any student whose quality point average at the end of the first semester is below 1.5 will be on probation for the second semester.

Any student not having at least 1.0 at the end of the second semester will be dismissed.

Any student having 1.0 or more but less than 1.5 will be on probation for the first semester of second year. A student who has a cumulative average of 1.5 or better at the end of freshman year advances unconditionally.

Sophomore Year

Students who do not attain a non-cumulative average of 1.75 at the end of the first semester will be liable to dismissal or placed on probation at the discretion of the Committee on Academic Standing.

A student must have a cumulative average of 2.0 to advance unconditionally to junior year.

Any student with a cumulative average greater than 1.75 but less than 2.0 will be placed on probation for the first semester of junior year.

Any student with a cumulative average lower than 1.75 will be liable to dismissal.

Junior Year

Students not attaining a cumulative average of 2.0 at the end of the first semester will be liable to dismissal or placed on probation at the discretion of the Committee on Academic Standing.

Any student who does not have a cumulative average of 2.0 or better at the end of junior year will be liable to dismissal.

Senior Year

Students not attaining a cumulative average of 2.0 at the end of the first semester will be placed on probation.

Students who do not have a cumulative average of 2.0 or better will not graduate.
Mid-Semester Survey and Warning

Mid-way in each semester, students whose semester records are dangerously low are advised that failure to improve scholastically during the remainder of the semester may result in dismissal. A note to this effect is also sent to parents or guardian.

Academic Probation

Academic Probation is not a penalty but is a warning and an opportunity to improve. A student who has a deficient failure or who does not meet the required Q.P.I. at the end of any semester will be placed on probation (provided he is not liable to dismissal for failure to meet the minimum Q.P.I.). A student placed on probation will be notified of this status and his parents will be apprised of it. The student will be assigned an advisor and will be instructed to make use of the aids available in the Counseling Center.

Academic Probation will be of one semester duration. If, however, further failures are incurred, or if the Q.P.I. required is not met at the end of one semester of probation, the student may be placed on probation for another semester (unless he has become liable for dismissal).

A student liable to a third successive semester on probation may be dismissed.

To remove probationary status, the student must achieve a passing grade in all courses and achieve the required Q.P.I. at the end of the semester of probation. Advancement to a higher grade may be denied a student who has not cleared all outstanding deficient failures.

A student on Academic Probation may participate in extracurricular activities with the approval of the Dean or the Assistant Dean. This approval is necessary in each individual case.

Academic Failure

Students who come under the following classifications will be considered to be academically unsatisfactory and will be asked to withdraw from the College:

1. A student who at the end of a semester is deficient in three or more courses. (A course is organized subject matter in which instruction is offered during a semester and for which 2, 3, or 4 credits toward graduation are given.)

2. A student who is deficient in three or more courses at the end of an academic year.

3. A student who during his college course has accumulated an excessive number of deficient failures, even if these have been removed by attendance at Summer School.
Conditional Failure

Freshmen who present satisfactory work in any course during the first semester but fail the final examination will be allowed a re-examination on the recommendation of the instructor. The highest grade for the course after the examination will be a passing grade. By failure in this second examination the freshman incurs a deficiency.

Credit for Summer Session Work

The approval of the Dean of Studies is requisite to gain credit for work done in summer school at another college. Summer school courses must be passed with a grade of C or better to be recognized by the college as degree credits.

The grade achieved in summer school will be evaluated to the intent of the corresponding grade in the system of grades and quality points explained on page 56. The Q.P.I. of the student will include not only the grade and points (grade of F achieves no points) of the course in which the student failed, but also those of the course taken in summer school.

To improve the quality points achieved in any given course at Holy Cross College, a student may attend a summer school session with the approval of the Dean. The quality points and grade earned in the summer session will be recorded in his permanent academic records and will be considered as contributory to his degree credits but not to Dean’s List or Graduation Honors.

If a student should be dismissed from the college because he has failed to maintain the required Quality Point Index, grades and quality points earned in a summer school will not be recognized and will not be recorded in his permanent academic records as contributing to a degree granted by Holy Cross College.

Extra Courses

A student in either Sophomore or Freshman class is not permitted to carry a greater number of hours than the normal number required in his course. Upper-classmen with a general average of B or over may, with the approval of the Dean, register for an extra course.

Withdrawal from a Course

Students who wish to withdraw from a course must have the approval of the instructor and the Dean.

Students withdrawing from a course during the first two weeks with the necessary approvals will be recorded as “W” (Withdrawn). After the second week permanent records of students withdrawing will carry “WF” (Failing), or “WP” (Passing). The estimate will be made by the Instructor. Withdrawal after the 10th week of course will be recorded as “WF” (Failing). Unauthorized withdrawal from any course will result in a Failing grade in this course.
During the first six weeks of each semester, there will be a proportional refund of tuition; after six weeks, there will be no refund. Throughout the semester, there will be a proportional refund of board and room charges.

**Curriculum and Course Change**

Ordinarily the student must follow the program of the curriculum under which he is registered. If a change of course within a curriculum is advisable, this will be accomplished with approval of the Chairman of the Department affected and the written permission of the Dean. No changes of course are permitted after the first two weeks of instruction.

Sometimes a change in a major program may be requested by the student or recommended by his advisor. Such a curriculum change will be authorized by the Dean.

**Foreign Study (Junior Year)**

A limited number of students having a cumulative average of 3.0 (B) for the first two years may apply for the Junior Year Abroad program. With the endorsement of the Faculty Committee on Study Abroad, they may enroll at an approved European university for their Junior Year courses. Participation in this program must begin with the fall semester and continue for a full year.

**Voluntary Withdrawal from College**

A student who withdraws voluntarily from the college is entitled to honorable separation under the following conditions:

1. He must not be liable to dismissal for disciplinary reasons.
2. He must return all college property.
3. All financial indebtedness must be settled with the college.
4. He must give proper notification to the Dean of his intentions to withdraw from the college.

**Transcripts of College Record**

On leaving the college, each student is entitled to a transcript of his record free of charge if his financial obligations to the college have been fulfilled. For additional transcripts a fee of one dollar will be charged.

No transcripts will be issued during the periods of Commencement, Registration and Examinations.

**Registration**

Accepted Freshmen will receive all information relative to registration sometime early in the summer preceding their matriculation.
Orientation Program

The Orientation Program begins immediately following the student's matriculation and continues in formal and informal meetings during the first term of Freshman year. It is designed to initiate the student into the climate of learning and the way of living at Holy Cross. Through discussions with Administrators, Faculty, and outstanding upper-classmen, the student's intellectual sights are set on the wide horizons of the educational adventure before him; the level of expectation of the student is lifted to those standards of responsible pursuit of learning which is the joint enterprise of faculty and students.

Readmission

Students who have withdrawn in good standing and wish to be readmitted to the college must apply to the Dean of the college. Applications for the fall semester should be made prior to June 1, and prior to January 1 for the spring semester. Readmission is not automatic, although the college will give some measure of preference to such an application. Because of space limitations, applications for readmission will be considered in the light of many new applications to the college.

Admission to Advanced Standing

Application for admission to advanced standing in Holy Cross College by transfer from another college must be made prior to June 1 to the Dean of the College. Students are admitted only at the beginning of the Fall Semester.

Applicants must present (1) formal admission application, accompanied by a non-refundable $10 application fee; (2) a complete, official transcript of secondary school records; (3) a complete, official transcript of college records, including a statement of good standing; (4) estimates of character and ability given by two former college teachers; (5) official records of the Scholastic Aptitude Test of the College Entrance Examination Board; (6) statement of good health by a physician.

Admission will be granted only to those who have completed with high grades (at least B) courses equivalent to the courses completed by the class to which they are making application.

Transfer students are not eligible for scholarship assistance during their first year at the college.

In order to qualify for a degree from Holy Cross, at least one-half of the student's courses must be completed at Holy Cross, including the two full semesters of senior year.
Public Presentations

In May of each year professors from other colleges are invited to examine certain qualified students publicly in Philosophy and in a chosen area of Greek studies. Students selected for these public presentations are excused from the end-of-course examinations in these subjects.

Special Fees

Regular candidates, upon receiving final notice of their acceptance, are obliged to forward a non-refundable reservation deposit of $100. For students accepted under the Early Decision Plan and for all Early Scholarship Awardees the required deposit fee will be $200. This fee will be required within two weeks of the date of the candidate’s notification of acceptance and/or Early Scholarship Award and will not, under any circumstances, be refunded. The amount deposited will be deducted from the first semester bill.

Audit: (per semester hour) ......................................................... $35
Examination, Absentee: ............................................................. 5
Examination, Conditional: (Freshmen, 1st Semester only) .... 5
Extra Course Fee: (per semester hour) ................................. 35
Graduation Fee: ......................................................................... 15
Late Registration Fee: ................................................................. 5
Reading Clinic Fee: (Cf. p. 29 Reading Improvement Program) .. 30
Withdrawal from Course: .............................................................. 5

Breakage Deposit:

There is no breakage deposit required for the Chemistry courses, but the amount of any breakage above the class average is billable to the responsible student.

Property Damage:

Any charges for property damage will be billed directly to the student. The minimum billing for such damage will be $5.
Requirements for Degrees


The College of the Holy Cross offers curricula leading to the degrees of Bachelor of Arts (A.B.), Bachelor of Science (B.S.) and Master of Science (M.S. in Chemistry).¹

BACHELOR OF ARTS DEGREE

This program is established to foster studies in the ancient classics. Holy Cross considers the program, based as it is on the principles of the Ratio Studiorum, a perfect instrument to develop fully and harmoniously the intellectual, moral and aesthetic powers of the student. Courses in Latin, Greek or Mathematics, Philosophy, English Literature, Modern Language, History and Theology form the substance of the curriculum during the Freshman and Sophomore years. In the Junior and Senior years the student may choose a field of concentration in preparation for graduate or professional school. Concomitantly with his studies in his major the student engages in courses in Philosophy, Ethics, Theology, and one course in an elective science. Holy Cross requires these courses in the firm belief that they bring a maturing influence into the life of the student. As of June, 1968 all graduates will receive this degree.

BACHELOR OF SCIENCE DEGREE

The program of studies leading to the Bachelor of Science Degree artfully balances training in the required subjects of English Literature, Mathematics, History, Modern Language, Philosophy, Psychology, Ethics, Theology, the Natural and Social Sciences. These liberal subjects are integrated with courses that satisfy the career interest of the student or prepare him for graduate school work in the area of his choice. In some curricula of this program the general educational development of the student is stressed in the Freshman and Sophomore years, when the student is enrolled in basic college courses in English, Mathematics, Modern Language, History, Theology, Social Science, Philosophy. In the Junior and Senior years the student engages in his major field of concentration concomitantly with courses in Philosophy, Ethics, and Theology. In other curricula of the program courses in the field of career interest are taken simultaneously with the Liberal Arts subjects. Holy Cross believes that this program of studies and the curricular requirements offer a thoroughly liberal education.

¹ Cf. p. 89.
Preparation for Professional Study

The College offers programs of study that will prepare the student for the professional schools. These programs are carefully integrated with liberal subjects and lead to the degrees of Bachelor of Arts or Bachelor of Science.

The office of the Graduate Studies Advisor has been established to aid students seeking a continuation of their education in graduate and professional schools.

Pre-Medical and Pre-Dental Students

Students who plan to include in their program of studies courses which will prepare them for medical or dental school will do so according to the following pattern: Four half-courses in Chemistry during the first two years; two half-courses in Physics and two half-courses in Biology in junior year.

Such students are required to pursue a major in any one of the fields of study available, except Accounting.

A Chemistry major will be required to fulfill his Biology requirements in an approved summer school. Students choosing Physics will have to complete in similar manner any requirement in modern language beyond three half-courses.

Chemistry

The Department of Chemistry is approved by the Committee on Professional Training of the American Chemical Society for its curriculum leading to the Bachelor of Science degree.

Law

Holy Cross offers no special program of courses to prepare students for the study of law. Students who wish to make such preparation are referred to their academic advisors.
Affiliations

To better promote the educational ideals of the Society of Jesus and to share in the fruits of the scholarship of other institutions of learning, the College of the Holy Cross holds institutional membership in the following organizations:


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Professor, Accounting
82 Greenhill Pkwy.

John R. McCarthy, M.A., Boston College
Assistant Professor, Mathematics
On Leave

Assistant Professor, English
Assistant Chairman, Department of English
Fenwick Hall

Visiting Professor, Theology
Weston College

Rev. Joseph E. McGrady, S.J., M.A., St. Louis University; S.T.L., Weston College
Assistant Professor, Theology
Fenwick Hall
Rev. Paul G. McGrady, S.J., M.A., Middlebury College
Instructor, English
Fenwick Hall

Rev. John P. McIntyre, S.J., M.A., University of Toronto
Instructor, English
Beaven Hall

John F. McKenna, Ph.D., Fordham University
Associate Professor, French
11 Monterey Dr., Cherry Valley

Rev. Owen P. McKenna, S.J., M.A., St. Louis University; S.T.L.,
Weston College
Associate Professor, History
Lehy Hall

Donald N. McKeon, Major, U.S.M.C.
Instructor, Marine Science
88 Bailey St.

Paul D. McMaster, Ph.D., Clark University
Assistant Professor, Chemistry
196 Clover St.

Robert F. McNerney, Jr., Ph.D., Yale University
Associate Professor, Spanish
193 Whitmarsh Ave.

James A. Merino, M.A., Boston University
Instructor, History
39 Vernon St.

Frederick S. Mirliani, M.A., Boston University
Lecturer, Fine Arts
102 Blue Hills Rd., Amherst

Director, Musical Clubs

Arthur H. Morrill, Jr., Capt., USAF
Assistant Professor, Aerospace Studies
28 Jeppson Ave.

John A. Moser, Lieut., USNR
Instructor, Naval Science
37 No. Prospect St., No. Oxford

James H. Nestor, M.A., Boston College
Professor, Mathematics
9 City View St.

Edward J. O'Brien, Lt., USN
Instructor, Naval Science
24 Breeze Dr.

John D. O'Connell, M.B.A., Boston University, C.P.A.,
Commonwealth of Massachusetts
Assistant Professor, Accounting and Economics
614 Salisbury St.

Rev. Leo A. O'Connor, S.J., M.A., Boston College; S.T.L.,
Weston College
Professor, Theology
Healy Hall

Rev. William J. O'Halloran, S.J., S.T.L., Fac. St.-Louise Chantilly,
Ph.D., Fordham University
Assistant Professor, Psychology
Chairman, Department of Psychology
Fenwick Hall
William F. O'Hara, Ph.D., University of Virginia  
Assistant Professor, Chemistry  
Auburn Garden Apts., Auburn

Ishwer Chandra Ojha, M.S., Lucknow University, M.A.L.D.,  
Tufts University  
Visiting Lecturer, Political Science  
69 Dana St., Cambridge

John J. Paris, S.J., M.A., Harvard University  
Instructor, Philosophy  
Wheeler Hall

Clyde V. Pax, Ph.D., Notre Dame University  
Assistant Professor, Philosophy  
11 Chesterfield Rd.

Edward Peragallo, Ph.D., Columbia University; C.P.A.,  
State of New York  
Professor, Accounting and Economics  
58 Elm St.

Peter Perkins, M.A., Dartmouth College  
Instructor, Mathematics  
5 Virginia Circle, Grafton

Frank Petrella, Jr., Ph.D., Notre Dame University  
Assistant Professor, Economics  
Acting Chairman, Department of Economics  
Assistant Director, Special Studies Program  
245 Greenwood St.

James F. Powers, M.A., University of Virginia  
Instructor, History  
146 Uncatena Ave.

John P. Reardon, M.Ed., Clark University  
Lecturer, Fine Arts  
26 Briarcliff La., Holden

John J. Reid, Ph.D., University of Virginia  
Assistant Professor, Economics  
79 West St.

Rev. Maurice F. Reidy, S.J., S.T.L., Weston College; Ph.D., Harvard  
University  
Associate Professor, History  
Fenwick Hall

Robert W. Ricci, Ph.D., University of New Hampshire  
Assistant Professor, Chemistry  
58 Elm St.

Paul C. Rooney, Capt., USN  
Professor, Naval Science  
Commanding Officer, NROTC Unit  
32 Wesson Terr., Northboro

Paul S. Rosenkrantz, Ph.D., Clark University  
Assistant Professor, Psychology  
24 Winthrop La., Holden
Assistant Professor, English

Rev. John J. Sampey, S.J., S.T.L., Weston College; Ph.D., Gregorian University
Professor, Latin

Rev. Francis B. Sarjeant, S.J., S.T.L., Weston College; Ph.D., Gregorian University
Professor, Philosophy

Rām Sarup, Ph.D., Johns Hopkins University
Associate Professor, Physics

Assistant Professor, English and Fine Arts

Warren Schiff, Ph.D., University of California at Berkeley
Associate Professor, History

Patrick Shanahan, Ph.D., Indiana University
Associate Professor, Mathematics

Emmett A. Shea, M.A., Boston University
M.A., Harvard University
Visiting Lecturer, History

Professor, Philosophy

Rev. Walter M. Shea, S.J., M.A., Boston College; S.T.L., Weston College
Instructor, Philosophy and Theology

Rev. Laurence R. Skelly, S.J., M.A., Boston College; S.T.L., Weston College
Instructor, English

Reginald J. Smith, M.Ed., Boston University
Associate Professor, Accounting
and Business Law

Rev. Thomas J. Smith, S.J., M.A., Georgetown University
Professor, Physics

Healy Hall
Carlin Hall
Fenwick Hall
78 Rockland Rd., Auburn
Clark Hall
8 Lenox St.
184 College St.
8 Terrace Rd., Natick
Lehy Hall
Fenwick Hall
On Leave
639 Pleasant St., Paxton
Fenwick Hall

120
Associate Professor, Theology
Hanselman Hall

James J. Tansey, M.A., University of Toronto
Associate Professor, Chemistry
Main St., Charlton

Donald F. Traub, M.A., St. John’s University
Instructor, Philosophy
50 Rolling Ridge Rd., Holden

Andrew P. Van Hook, Ph.D., New York University
Professor, Chemistry
36 Henshaw St., Leicester

Edward F. Wall, Jr., M.A., Fordham University
Instructor, History
6 St. Elmo Rd.

Rev. Thomas J. Walsh, S.J., M.A., Boston College
Associate Professor, Theology
Fenwick Hall

Robert B. Watts, Lt., USN
Instructor, Naval Science
3 Sunnyhill Dr.

Robert C. Williams, A.B., Oxford University
Instructor, English
9 William St.

John H. Wilson, M.A., Yale University
Instructor, English
29 Washington Ave., Shrewsbury

Donald J. Winn, S.J., M.A., Boston College
Instructor, Philosophy
Lehy Hall

Rudolph L. Zlody, Ph.D., Fordham University
Associate Professor, Psychology
9 Roseland Rd.

William L. Zwiebel, M.A., University of Pennsylvania
Instructor, German
28 Rock Ave., Auburn
Scholarships

General
There are a limited number of tuition or other partial awards that are made from the college funds.

Presidential Scholarships
These scholarships were instituted in 1961 in recognition of those Jesuit Education Association High Schools which regularly send to Holy Cross College excellently prepared students. A full, four-year tuition scholarship will be awarded annually to one senior from each of these Jesuit High Schools. The winner will be named by the college from three finalists designated by the administrators of each high school as outstanding for academic achievement, character, personality, and leadership. The high schools announce this competition annually.

Endowed Scholarships

THE GOVERNOR AMES SCHOLARSHIP
Established in 1887 by Governor Oliver Ames. (Income on $1,000.00)

THE EUGENE A. BICKFORD SCHOLARSHIP
Established in October, 1932, from the estate of Mrs. Mary A. Magenis of Brookline, Mass., in memory of her brother, the late Eugene A. Bickford, '96. The annual income to provide for the education of a deserving student under such conditions and regulations as imposed by the Faculty of the College. (Income on $5,000.00)

THE REV. CHARLES E. BURKE SCHOLARSHIP
Established in 1895. Appointment to be made from residents of St. Francis Parish, North Adams, Mass. (Income on $3,000.00)

THE JAMES M. BURKE SCHOLARSHIP
Established on April 1, 1950 from the Estate of William H. Burke. The beneficiary is to be selected by the Trustees of the College. (Income on $11,662.69)

THE DR. AND MRS. HARRY P. CAHILL SCHOLARSHIP
Established in June, 1963 from a Trust Fund established by Dr. Harry P. Cahill and the Estate of his wife, Anne R. Cahill. Income to be used to aid students who lack sufficient financial means for their education. Selection is to be made by college authorities. (Income on $55,542.48)

THE ROBERT J. CAIRNS MEMORIAL FUND
Established on September 24, 1953 by bequest from the estate of Alfred F. Finneran, for scholarship aid to worthy students. (Income on $5,000.00)

THE THOMAS CALLAGHAN SCHOLARSHIP
Established in 1914 by the late Thomas Callaghan of Leicester, Mass., limited to resi-
dents of Worcester County, "preference to be given to those preparing for the priesthood." (Income on $2,000.00)

THE HONORABLE JAMES BERNARD CARROLL SCHOLARSHIP
Established in 1939 by Mrs. James Bernard Carroll as a memorial of her husband, the late Justice James Bernard Carroll of the class of 1878. Restricted to graduates of St. Michael's Cathedral High School, Springfield, Massachusetts. Selection to be made by the Very Reverend Rector of Holy Cross College and the Reverend Rector of St. Michael's Cathedral, Springfield, on candidate's character, scholarship and extracurricular achievements.

THE FRANK D. COMERFORD MEMORIAL FUND
Established by Archibald R. Graustein in 1959. (Income on $15,500.00)

THE CONNECTICUT VALLEY ALUMNI SCHOLARSHIP
Established in 1912 by the Alumni of Connecticut Valley. (Income on $1,725.00)

THE MAURICE CONNOR MEMORIAL SCHOLARSHIP
Established in 1929 by Mr. John T. Connor in memory of his brother, Maurice. The intention of the donor is to provide, for one boy, board, room, tuition and fee charges, as far as the income will provide them. The single beneficiary is to be chosen by the Pastor of St. Mary's Church, Westfield, Mass. (Income on $15,000.00)

THE MONSIGNOR GEORGE S. L. CONNOR SCHOLARSHIP
Established on October 18, 1955 by gift of the late Msgr. George S. L. Connor, '07. Selection to be made by the president of the college who shall give first preference to a worthy applicant who is a member of Holy Name Parish in Springfield, Massachusetts. If no such eligible candidate applies, then such a candidate who graduates from Cathedral High School shall be considered; if none such, then any applicant from the Springfield high schools. Candidates must pass scholarship test as set up and be of good personality with evidence of leadership qualities.

THE THOMAS COSTELLO AND ANN COSTELLO SCHOLARSHIP
Established on December 9, 1947, by bequest of Susan A. Costello in memory of her parents, and by a bequest from the estate of Fanny Goodwin Hobbs. Income to be used to aid a student who lacks sufficient financial means for his education and who has expressed the intention of entering the priesthood. (Income on $10,000)

THE CROWLEY FAMILY MEMORIAL SCHOLARSHIP I.
Established on July 2, 1947, by bequest of Miss Bridget T. Crowley of Springfield, Mass. Beneficiary to be selected by competitive examination and is open to students of the parochial and public high schools of Springfield, Mass., who are morally, mentally and physically worthy and competent and who show promise of ability, but who have such limited financial means that, if not aided by a scholarship, would be unable to attend college. (Income on $13,033.00)

THE CROWLEY FAMILY MEMORIAL SCHOLARSHIP II.
Established in 1947 by bequest of Miss Bridget T. Crowley of Springfield, Mass. Conditions same as the Crowley Family Memorial Scholarship I. (Income on $14,642.14)
THE CROWLEY FAMILY MEMORIAL SCHOLARSHIP III.
Established in 1947 by bequest of Miss Bridget T. Crowley of Springfield, Mass. Conditions same as the Crowley Family Memorial Scholarship I. (Income on $14,122.99)

THE CRUSADER COUNCIL KNIGHTS OF COLUMBUS SCHOLARSHIP
Established in June, 1963 by a gift of $5,000.00 toward the establishment of a $15,000.00 scholarship in honor of Rev. Joseph F. Busam, S.J., and in gratitude for his many years of service as Chaplain of the Crusader Council. Income to be used with preference to be given to pre-medical or pre-dental students. (Income on $5,000.00)

THE RIGHT REV. MONSIGNOR DANIEL F. CURTIN SCHOLARSHIP
Established in 1921 by the Rt. Rev. Monsignor Daniel F. Curtin, Glens Falls, N.Y., to be appointed by the pastor of St. Mary's Church, Glens Falls, N. Y. (Income on $10,000.00)

DR. AND MRS. CARL J. DE PRIZIO SCHOLARSHIP
Established on October 30, 1959 by gift of 300 shares of Boston Fund, Inc. Income to be used for award to deserving student in the sciences.

THE DANIEL T. DEVINE SCHOLARSHIP
Established in October 1945 from the estate of Mary F. Devine in memory of her brother, Rev. Daniel T. Devine. To be awarded as a result of competitive examination to the member of the graduating class of St. Mary's Parochial School, Milford, Mass., who has attended said high school for four years and who has been a member of St. Mary's Parish throughout his high school course. (Income on $15,000.00)

THE JAMES F. DONNELLY, '99 SCHOLARSHIP
Established on May 11, 1956 by gift from Sylvan Oestreicher Foundation. (Income on $15,000.00)

THE EASTMAN KODAK COMPANY SCHOLARSHIP
Established on September 16, 1960. (Income on $7,200.00)

THE THEODORE T. AND MARY G. ELLIS SCHOLARSHIP FUND
Established in 1941 by the estate and through the generosity of the late Theodore T. and Mary G. Ellis. From the income of this fund, several scholarship awards of full or partial tuition are annually granted to residents of the City of Worcester. (Income on $283,834.49)

THE REV. PATRICK J. FINNEGAN, P. R. SCHOLARSHIP
Established on November 28, 1955 by bequest from the estate of Rev. Patrick J. Finnegan. Income to be used to assist needy boys from Portsmouth, N. H. (Income on $5,032.60)

GENERAL MOTORS COLLEGE PLAN SCHOLARSHIP
A four year scholarship offered annually by General Motors Corporation. The amount of the award varies with the financial need of the recipient as determined by the General Motors Scholarship Committee.
THE "IN MEMORY OF DAVID GOGGIN" SCHOLARSHIP
Established in 1925 by Mrs. Catherine M. Goggin, in memory of David Goggin. Preference to be given a relative. (Income on $1,000.00)

THE THOMAS F. GROGAN SCHOLARSHIP
A memorial of the deceased father of Dr. Richard H. Grogan, '35, and his brother, Fr. Thomas Grogan, S.J.

THE MONSIGNOR GRIFFIN SCHOLARSHIP
Established in 1895, limited to residents of St. John's Parish, Worcester, Mass. (Income on $1,000.00)

THE MARY AGNES HABERLIN FOUNDATION
For worthy students chosen by the president or faculty of the college. (Income on $249,111.14)

THE JOHN H. HALLORAN SCHOLARSHIP I.
Established in 1909 by Mr. John H. Halloran of New York, as a memorial of his brother, the late William J. Halloran, of Worcester, competition open to the country. (Income on $12,000.00)

THE JOHN H. HALLORAN SCHOLARSHIP II.
Established in 1921 by Mr. John H. Halloran of New York, as a memorial of his brother, the late William J. Halloran, of Worcester. Selection to be made from the students of the public and parochial schools of Northampton, Mass., by means of competitive examinations. (Income on $12,000.00)

THE REV. THOMAS STEPHEN HANRAHAN SCHOLARSHIP
Established in January, 1963 by a bequest from the Estate of Margaret Ellen Kearney as a memorial to the Rev. Thomas Stephen Hanrahan. Income to be used to aid a worthy student. (Income on $5,000.00)

THE REV. JEREMIAH J. HEALY SCHOLARSHIP I.
Established in 1912 by the Rev. Jeremiah J. Healy, of Gloucester, Mass., for a candidate for the priesthood worthy of financial aid. (Income on $1,500.00)

THE REV. JEREMIAH J. HEALY SCHOLARSHIP II.
Same as the "Rev. Jeremiah J. Healy Scholarship I." (Income on $1,500.00)

THE RICHARD HEALY SCHOLARSHIP
Established in 1908 by Mr. Richard Healy of Worcester, open to competition for residents of Worcester County regardless of creed. (Income on $8,000.00)

THE MR. AND MRS. RICHARD HEALY SCHOLARSHIP
Established in 1916 by Mr. and Mrs. Richard Healy of Worcester, for benefit of a direct relative of donors. (Income on $12,000.00)
THE REV. FREDERICK W. HEANEY, S.J. SCHOLARSHIP
Established in 1920 by Miss Lillian Heaney, in memory of her deceased brother, the Rev. Frederick W. Heaney, S.J. (Income on $2,500.00)

THE JOHN W. HODGE SCHOLARSHIP
Established in 1946 by a bequest from the late John W. Hodge to aid some worthy Catholic boy from Cambridge, Mass., the terms and conditions of which are to be fixed and regulated by the college. (Income on $4,466.20)

THE JOHN T. HOLLAND '17, MEMORIAL SCHOLARSHIP
Established on January 2, 1954 by gift from Matthew M. Berman. To be used for worthy students selected by the president of the college. (Income on $9,500.00)

THE HOLY CROSS COLLEGE SCHOLARSHIPS
These are a limited number of tuition or other partial awards that are made from the college funds, at the times and to the amounts that the financial position of the college permits.

KATHERINE H. HOY SCHOLARSHIP
Established on December 14, 1959 by bequest of $5,000.00 from the Estate of James M. Hoy, '05. Income to be used to assist a student with preference given to a needy and deserving boy of St. Stephen's Catholic Parish of Worcester.

THE JOHN COLLINS HURLEY SCHOLARSHIP
Established on April 28, 1953 by bequest from the estate of Margaret M. Hurley. Income to be used for education of worthy graduate of Durfee High School, Fall River, Mass. (Income on $5,026.67)

THE WARREN JOSEPH HURLEY SCHOLARSHIP
Established in 1929 by Mrs. Jeremiah J. Hurley in memory of Warren Joseph Hurley, '29, for the benefit of one or more worthy students aspiring to the priesthood. Selection to be made by the President of the College. (Income on $5,000.00)

THE "IN MEMORIAM" SCHOLARSHIP
Established in 1915 by an alumnus of the college for a deserving student. (Income on $8,000.00)

THE REV. CHARLES L. KIMBALL, S.J. SCHOLARSHIP
Established in June, 1961 by a bequest from the Estate of Rev. Arthur B. Kimball. Income to be used to aid a worthy student selected by the faculty. (Income on $6,551.40)

THE OTTO SEINDENBURG KING SCHOLARSHIP
Established in October, 1954 by gifts from Atty. John King, '25. Income to be used for a deserving student. (Income on $10,150.00)

THE REV. MICHAEL H. KITTREDGE SCHOLARSHIP
Established in 1917 by Rev. Michael H. Kittredge, '75. (Income on $5,000.00)
THE MASSACHUSETTS STATE COUNCIL OF KNIGHTS OF COLUMBUS
SCHOLARSHIP FUND
Established in 1937 by the Massachusetts State Council Knights of Columbus; open to
members and sons of members of the Knights of Columbus residing and having their mem-
bership in the Order in Massachusetts. Award to be made by competitive scholastic exam-
inations under the administration of the College of the Holy Cross.

THE PATRICK W. LALLY MEMORIAL SCHOLARSHIP
Established in March, 1954 from the estate of James Lally to be awarded to a worthy
graduate of St. Mary's High School, Milford, Mass., who will be selected by the Presi-
dent of the College of the Holy Cross. (Income on $5,221.60)

THE MICHAEL J. LAWLOR SCHOLARSHIP
Established in February, 1949, by bequest from the late Retta M. Lawlor. Income to
be used to aid a bright and needy student, resident of Waterbury, Conn., who in the
opinion of college authorities, shall be deserving of financial assistance. (Income on
$5,000.00)

WILLIAM E. LEAHY, '07 MEMORIAL SCHOLARSHIP FUND
Established on May 8, 1959 by The Holy Cross Alumni Club, Washington, D.C.

W. H. LEE MILK COMPANY ENDOWMENT FUND
Established on September 4, 1959 with a gift of 50 shares of Eastman Kodak with the
provision that the income from these shares be added to the principal until September 1,
1973. After September 1, 1973 the income is to be used for scholarship aid in accord-
ance with specifications as set down in the agreements.

THE JOHN J. LEONARD SCHOLARSHIP OF THE M.C.O.F.
Found in 1926 and restricted to members, or sons of members, of the M.C.O.F.,
selection to be made by competitive examinations. (Income on $6,000.00)

THE REV. JOHN G. MAHONEY, S.J., A FORMER PROFESSOR AT THE COLLEGE, AND
JAMES E. MAHONEY, '10, MEMORIAL SCHOLARSHIP
Established in 1946 by Mrs. Edward C. Donnelly in memory of her brothers; to be
awarded to a deserving student studying for the degree of Bachelor of Arts in the
Classical course who is to be selected by the president of this college. (Income on
$20,000.00)

THE HENRY VINCENT McCABE SCHOLARSHIP
Established in 1916 by the late Mary McCabe of Providence, R. I., for a deserving
student. (Income on $5,000.00)

THE REV. DENIS F. McCAFFREY SCHOLARSHIP
Established on September 29, 1953 by bequest from the estate of Rose A. McCaffrey.
(Income on $700.00)

THE EUGENE AND MARGARET McCARthy SCHOLARSHIP
Established in July, 1962 by a bequest from the Estate of Margaret McCarthy. In-
come to be used to aid a worthy student with preference to be given to a resident of Springfield, Mass. (Income on $24,702.63)

THE PETER McCORD SCHOLARSHIP
   Established by Mary Lambert McCord for a deserving student.

THE REV. DAVID F. McGRATH SCHOLARSHIP I.
   Established in 1907 by the Rev. David F. McGrath, '70, beneficiary to be selected by competitive examinations. Restricted to graduates of St. Mary's Parish School, Milford, Mass., if there be more than one eligible candidate. If but one such, graduates of Milford Public High School may be admitted to competition; if but one candidate from both schools, anyone otherwise eligible in the State to be admitted to competition. (Income on $6,000.00)

THE REV. DAVID F. McGRATH SCHOLARSHIP II.
   Established in 1920 by the Rev. David F. McGrath, '70; conditions same as the "Rev. David F. McGrath Scholarship I." (Income on $6,000.00)

THE REV. DAVID F. McGRATH SCHOLARSHIP III.
   Established in 1920 by the Rev. David F. McGrath, '70; conditions same as the "Rev. David F. McGrath Scholarship I." (Income on $8,000.00)

THE DR. FREDERICK J. McKECHNIE SCHOLARSHIP
   Established in December, 1962 by a bequest from the Estate of Mary I. Dunn. (Income on $6,223.76)

THE MONSIGNOR JOHN W. McMAHON SCHOLARSHIP
   Established in 1938 under provision of the will of Rt. Rev. Msgr. John W. McMahon, '67, to give scholarship aid to a Holy Cross student to be designated by the Reverend Pastor of St. Mary's parish, Charlestown, Boston, Massachusetts, preference being given to students coming from St. Mary's parish. (Income on $5,000.00)

THE PATRICK J. MURPHY SCHOLARSHIP
   Established in 1914 by Mrs. Ellen M. Murphy, as a memorial to her husband, the late Patrick J. Murphy, Worcester, Mass. (Income on $1,500.00)

THE MONSIGNOR RICHARD NEAGLE SCHOLARSHIP
   Established in 1943 by His Excellency the Honorable Alvan T. Fuller, former Governor of the Commonwealth of Massachusetts, in memory of the late Right Reverend Monsignor Richard Neagle of the Class of 1873, to assist boys qualified, in the opinion of the faculty, but who otherwise could not afford such an expenditure as would be necessary to enjoy the educational and religious advantages of the College of the Holy Cross. (Income on $35,000.00)

THE DENIS F. AND LORETTO RADEL O'CONNOR SCHOLARSHIP
   Established on May 26, 1955 by Dr. Denis F. O'Connor, '93, to be used for a worthy student to be selected by college authorities. (Income on $30,000)
THE O'DRISCOLL SCHOLARSHIP
Established in 1874, for a student (limited to residents of the City of Worcester), who is a candidate for the priesthood and is selected by the Bishop of Worcester or his delegate. (Income on $3,000.00)

THE MAY AND SYLVAN OESTREICHER SCHOLARSHIP
Established on December 30, 1957 by gift of Sylvan Oestreicher. (Income on $36,826.80)

THE MARY C. O'NEIL FUND FOR BRISTOL COUNTY STUDENTS
Established on January 7, 1955 by gifts from Margaret T. O'Neil, to be used to aid a student from Bristol County. (Income on $2,900.00)

THE REV. DANIEL H. O'NEILL SCHOLARSHIP I.
Established in 1895, limited to residents of St. Peter's Parish, Worcester, Mass. (Income on $1,000.00)

THE REV. DANIEL H. O'NEILL SCHOLARSHIP II.
Established in 1908, limited to the residents of the City of Worcester. (Income on $1,500.00)

PENHALL-O'ROURKE SCHOLARSHIP
Established on September 9, 1958 by bequest of $1,000.00 from the estate of Dr. James J. O'Rourke, '09 to be used for scholarship purposes in aiding a deserving student.

THE REV. DR. PATRICK B. PHELAN SCHOLARSHIP
Established in 1917 by Rev. Dr. Patrick B. Phelan, '69; open to competition for graduates of the Sacred Heart School, Holyoke, Mass. (Income on $16,000.00)

THE DAVID H. POSNER AND MARY MURPHY POSNER FOUNDATION
Established on July 1, 1957 by bequest from the estate of Mary M. Posner. Income to be used toward tuition of worthy students. (Income on $14,922.68)

THE REV. JOHN J. POWER SCHOLARSHIP
Established in 1907 by the late Rev. John J. Power, D.D., limited to residents of St. Paul's Parish, Worcester, Mass. (Income on $1,500.00)

THE MARY A. PRENDERGAST SCHOLARSHIP
Established in 1945 under the will of the late Mary A. Prendergast for deserving orphan students. (Income on $4,948.40)

THE PURPLE PATCHER SCHOLARSHIP
Established in June, 1963 by the staff of the yearbook, the Purple Patcher, Class of 1963. The first gift was in the amount of $8,031.85 and it is anticipated that future staffs will augment the fund. The Scholarship will become available in September 1966.

THE "QUID RETRIBUAM" SCHOLARSHIP
Established in 1907 by a friend of education in gratitude for divine favors; if not filled by founder, competitive examinations will be held. (Income on $8,000.00)
THE PATRICK W. RAFFERTY SCHOLARSHIP
Established in 1920 and open to competition among deserving students of the City of Worcester. (Income on $2,000.00)

IN MEMORY OF DENNIS M. AND JOSEPHINE F. REARDON SCHOLARSHIP
Established on January 11, 1952 by bequest from the estate of Josephine F. Reardon. Income to be used to aid a worthy student preparing for the holy priesthood. (Income on $10,575.39)

THE JOHN REID SCHOLARSHIP
Established in 1894, limited to residents of Worcester. (Income on $1,500.00)

THE CATHERINE F. REILLY SCHOLARSHIP
Established on June 1, 1955 by bequest from the estate of Joseph J. Reilly, '04, in memory of his mother. Income to be used for a worthy student to be selected by College authorities. (Income on $12,500.00)

THE JAMES H. REILLY SCHOLARSHIP
Established on June 1, 1955 from the estate of Joseph J. Reilly, '04, in memory of his father. Income to be used for a worthy student to be selected by college authorities. (Income on $12,500.00)

THE REILLY MEMORIAL SCHOLARSHIP
Established in 1922 by the late Joseph J. Reilly, '04. (Income on $1,000.00)

THE MARY J. ROBINSON SCHOLARSHIP
Established in 1943 by the late Mary J. Robinson in memory of her mother and father and brothers to assist deserving young men of the Roman Catholic faith in obtaining a collegiate education at the College of the Holy Cross. (Income on $11,297.86)

THE REV. WILLIAM H. ROGERS SCHOLARSHIP
Established in 1918 by Rev. William H. Rogers, '68. (Income on $10,000.00)

THE HON. JOHN E. RUSSELL SCHOLARSHIP
Established in 1907 by a Friend of the College. (Income on $1,500.00)

THE SCHOLLER FOUNDATION SCHOLARSHIP
Established on October 24, 1955. (Income on $1,000.00)

TIMOTHY A. SHEA SCHOLARSHIP FUND
Established by bequests totaling $101,918.16 from the estate of Timothy A. Shea in memory of his parents, Mr. and Mrs. Daniel M. Shea; a brother, Michael F. Shea; and sisters, Katherine and Elizabeth. Income to be used exclusively for non-resident students residing in the City of Worcester and awarded on a competitive basis.

THE ELIZABETH SPANG SCHOLARSHIP
Established in 1936 by the will of Elizabeth Spang of West Haven, Connecticut. This
income to be used toward the education of a “student of Holy Cross College whom the governing body of said College may deem to be in need of financial assistance for his college work and worthy of said scholarship.” (Income on $5,000.00)

IN MEMORY OF HELEN M. AND JOHN F. TINSLEY SCHOLARSHIP
Established on November 20, 1953 by bequest from the estate of John F. Tinsley. Income to be used to assist worthy students selected by the president of the college. (Income on $55,000.00)

THE REV. DAVID W. TWOMEY, S.J. SCHOLARSHIP
Established on October 10, 1955 by gifts from family and friends of Fr. Twomey, S. J. Income to be used to aid a worthy student. (Income on $21,100.00)

THE REV. ROBERT WALSH SCHOLARSHIP
Established in 1895, limited to residents of the Immaculate Conception Parish, Worcester, Mass. (Income on $1,000.00)

THE STEPHEN W. WILBY SCHOLARSHIP
Founded by the Naugatuck Valley Alumni Association and friends in Connecticut. (Income on $7,514.01)

WORCESTER FEDERAL SAVINGS AND LOAN ASSOCIATION EDUCATIONAL FUND
Established on April 1, 1960 by gift of $2,500.00

Financial Aid Acknowledgments

Many Holy Cross Alumni Clubs sponsor students of their selection for complete or partial tuition scholarships. Among those who have participated in this program are:

Holy Cross Club of Boston
Holy Cross Alumni Club of Worcester
Holy Cross Club of Rhode Island
Berkshire County Holy Cross Club
Springfield, Massachusetts Alumni Association Club
Holy Cross Club of Maine
Holy Cross Club of Eastern New York
Rochester Alumni Club
Eastern Connecticut Holy Cross Club
Plymouth Alumni Club

Many of these Clubs are annual contributors; others contribute at various times.

Grateful acknowledgment is also due to the many Corporations, Foundations, Fraternal Organizations, P.T.A., High School Associations and similar groups who have aided students of their selection by financial contributions toward tuition costs.
College Organizations

AQUINAS CIRCLE
The Aquinas Circle is an organization of seniors interested in further study and discussion of philosophical problems and their correlation with modern thought in science and literature.

ARNOLD AIR SOCIETY
The Arnold Air Society is a professional honorary service organization of selected advanced AFROTC cadets to promote American citizenship in an air age; to advance the support of air power; to further the purpose, mission, tradition and concept of the U.S. Air Force for national security and to create a closer and more efficient relationship within the Air Force ROTC.

BIOLOGY SOCIETY
The Biology Society, composed of students majoring in biology, provides its members with the opportunity to study more intensively and critically some of the problems of that science.

CAMERA CLUB
The Camera Club, open to all students, provides its members with darkroom facilities for developing and printing their own films, and with technical assistance when needed. Many of its members serve on the photo staffs of campus publications.

CHRISTIAN ENCOUNTER
A lecture series which presents the student with the modern predicament. Noted intellectuals present their resolution of the confrontation of the timeless principles of Christianity and contemporary living.

COLLEGE CHOIR
The College Choir was organized to assist at chapel services and to promote devotion by acquainting students with the treasury of Church music.

CONFRATERNITY OF CHRISTIAN DOCTRINE
The Confraternity of Christian Doctrine is a student teachers unit. The purpose of the Confraternity is “to bring Christ to youth and to bring youth to Christ.” Holy Cross students conduct religious doctrine classes for grammar school boys and girls and for high school students.

CROSS AND CRUCIBLE CHEMISTS’ CLUB
This club is devoted to the advancement of chemistry and the development of social and professional relations among its members. The club was founded in 1927 and is open to all undergraduate students of chemistry. The club is a chapter of Student Affiliates of the American Chemical Society.
CROSS AND SCROLL SOCIETY
The Cross and Scroll Society, originally formed as the Hellenic Academy for the promotion of interest in classical studies, has through the years expanded its aims to include topics of Literature, Art and General Culture. Besides its group meetings the Society sponsors public lectures pertinent to Christian Culture and Education.

B.J.F. DEBATING SOCIETY
Organized in 1846 in honor of the founder of Holy Cross College, the Most Reverend Benedict Joseph Fenwick, S.J., this society in the one hundred and eighteen years of its existence has a tradition of excellence in public speaking. It supports an extensive schedule of house, lecture, radio and intercollegiate debates.

ECONOMICS CLUB
The Economics Club hopes to instill in its members both the willingness to confront the complexities of modern economic problems and the ability to pose and weigh alternatives to the questions of economic policy. At its meetings members present papers on topics of interest to the group.

FENWICK THEATRE COMPANY
The Fenwick Theatre Company is a company of actors and technicians from the College and actresses from the community. Guided by a faculty director and technical director, and playing in modern Fenwick Theatre on the campus, it offers the student body a chance to participate in and to see the finest dramatic works in the history of world theatre.
Fenwick Theatre also houses Theatre 481, a theatre workshop, where Freshman Apprentice programs are presented. All members of the company may experiment in acting, directing, lighting, and design.

HISTORY ACADEMY
The History Academy has for its object the increase of interest in the study of history.

INTERNATIONAL RELATIONS CLUB
This club has for its purpose a thorough understanding of the principles that motivate states in their conduct with one another. It seeks a deep knowledge of the causes that produce international tensions.

INTERRACIAL JUSTICE CLUB
The Interracial Justice Club was organized in 1951 to promote better understanding of the Catholic attitude toward contemporary racial problems.

INTRAMURAL ATHLETICS
Perhaps the most flourishing and popular extracurricular activity on "the Hill" is the intramural athletics program. Tournaments are held in indoor and outdoor sports.

JOHN COLET EDUCATION SOCIETY
The John Colet Education Society was established in 1959 to stimulate interest in secondary school and college teaching.
LABOR PROBLEMS ACADEMY
The Labor Problems Academy, open to students majoring in Economics, was organized in 1935 to encourage the study of Catholic principles applicable to the labor problems in the United States.

LEAGUE OF THE SACRED HEART
The League of the Sacred Heart dates back to the year 1888 at Holy Cross. Mass is offered on the First Friday of each month in honor of the Sacred Heart. As an act of reparation from sin, Exposition of the Most Blessed Sacrament is held each First Friday from the conclusion of Mass to Benediction at night. Volunteers hold vigil during the time of Exposition.

MATHEMATICS CLUB
The Mathematics Club, established in 1946, meets regularly to discuss topics in advanced undergraduate mathematics. The purpose of the club is to promote the study of pure and applied mathematics.

MISSION UNIT
The Holy Cross Unit of the Mission Crusade was established in 1921. Reasonable and voluntary offerings by the students of the college are encouraged as a means of fostering a realistic concern for the far-flung foreign fronts of the Church. Mite boxes, used clothing, papers, books, altar supplies are the contrivances utilized to bring home to the students the truth that we do not live alone, that we are members of the Mystical Body.

MUSIC CLUBS
Two separate organizations foster and develop musical talent among the students—the College Glee Club and the College Orchestra and Band.

OUTING CLUB
The Outing Club is one of the larger organizations on the campus. Its purpose is to develop a strong bond of friendship between its members and the members of other collegiate outing clubs by means of common athletic and social activities.

PHYSICS SOCIETY
The Physics Society, composed of students interested in physics, has for its purpose the development of deeper and wider interest in that subject. Speakers from the faculty, student body and industry discuss aspects of pure physics and its applications.

POLITICAL CLUBS
One of the objects of a liberal education has been the formation of the "good citizen." To effect this aim, political clubs representing the Democratic and Republican parties and the Conservative movement have been established.

PURPLE KEY
It is the purpose of this organization to foster devotion, loyalty and enthusiasm
for Alma Mater. The Purple Key sponsors student activities, plans and conducts student manifestations of the spirit of Mount St. James and always endeavors to promote the interests of the students in the affairs of their college life.

RADIO STATION WCHC

The Campus Radio Station, WCHC, which began a formal broadcasting schedule on December 6, 1948, is operated entirely on an extracurricular basis by student members. It provides a talent outlet and radio experience for students in its various departments: station management, programming, production, announcing, radio dramatics, sports, newswriting, music, commercial departments and other functions common to commercial radio stations.

ST. JOHN BERCHMANS SANCTUARY SOCIETY

The St. John Berchmans Sanctuary Society has for its object the fostering of a special devotion in the assisting at the altar in all religious ceremonies.

ST. THOMAS MORE SOCIETY

The St. Thomas More Society is open to all who are interested in a future career in the law. Through lectures and discussions by lawyers, professors and deans of law schools, students gain both a theoretical and practical knowledge of the profession.

SEMPER FIDELIS SOCIETY

The Semper Fidelis Society is a national association dedicated to the stimulation and protection of the high traditions of the U.S. Marine Corps. It is composed of selected cadets enrolled in a program leading to a commission as an officer in the Marine Corps. The Alpha Gamma chapter at Holy Cross meets regularly with distinguished guest speakers and holds an annual field trip to a Marine installation.

SODALITY

As a means of engendering filial love and inculcating virtue in the students the Sodality of Our Lady was established in 1844 under the title of the Immaculate Conception and with the patronage of St. Aloysius Gonzaga. The Sodality has for its object the realization of the fullness of the Christ-life through Mary, by means of the solemn consecration of its members, and their active dedication to the "way of life" of their Christian Baptism.

STUDENT CONGRESS

The Student Congress is composed of elected representatives and officers of the student body whose purpose is to act as the official representative of the student body; to receive and express student opinion; and to advance the best interests of the student body with the administration and faculty, and with other educational institutions and associations.

TRIDENT SOCIETY

The purpose of the Trident Society is to instill a greater esprit de corps among the NROTC midshipmen in both the Navy and their own unit by engendering a
spirit of camaraderie through social and informational activities. The society is a voluntary organization open to all midshipmen, which gives them social and professional opportunities not available through individual action.

**Publications**

**THE ALUMNUS**

The *Alumnus*, published quarterly by the Holy Cross College Alumni Association and edited by the Office of Public Relations, has as its purpose the preservation of the bond of unity among the college's graduates and the strengthening of the nexus between the alumni and the college.

**THE BIOLOGY JOURNAL**

*The Biology Journal* is published annually by the members of the Biology Society. It offers pre-medical, pre-dental and Biology students an opportunity to have superior papers published.

**THE CROSS AND CRUCIBLE**

The *Cross and Crucible* is normally published four times a year by the Department of Chemistry. It provides a medium of scientific expression for chemistry students; it records work of a progressive nature done in the department; it supplements the textbooks with timely articles of general interest to the student of chemistry; and it records the abstracts of departmental seminars and theses.

**THE CRUSADER**

*The Crusader*, the weekly newspaper of the college, has been published since 1924. Its purpose is twofold: to train interested students in the art of journalism; and to secure a firmer bond among undergraduates and alumni through reporting and commenting upon the important events on and beyond the Hill.

**THE HOLY CROSS PURPLE**

*The Holy Cross Purple* is a quarterly magazine published by the students of the College. Its aim is to cultivate a high literary taste among the students by exercising them in both critical and creative compositions.

**THE PURPLE PATCHER**

*The Purple Patcher*, published annually by the Senior Class, is a chronicle of the activities of the class during its four years' stay at Holy Cross.
Athletic Association

The object of the Athletic Association is to promote the athletic interests of the college, and to discuss and determine matters of management pertaining to the welfare of collegiate and intercollegiate sports.

Eugene F. Flynn, B.A. ................................................................. Director
Joseph W. McDonough, B.S. .......................................................... Business Manager
Paul N. Johnson, B.S. .............................................................. Director of Sports Information
Edward N. Anderson, M.D. ......................................................... Coach of Football
Oscar Lofton, B.S. ............................................................... Assistant Coach of Football
Ecio Luciano, Ph.B. ............................................................... Assistant Coach of Football
Melvin G. Massucco, B.S. ....................................................... Assistant Coach of Football
Harry W. Connolly, B.S. ........................................................ Assistant Coach of Football
Frank A. Oftring, Jr., B.S. .......................................................... Coach of Basketball
Robert T. Curran, B.S. ...................................................... Assistant Coach of Basketball
Albert D. Riopel, B.A. .......................................................... Varsity Baseball Coach
Bartholomew F. Sullivan .................................................. Coach Emeritus of Track; Trainer
Thomas F. Duffy, B.S. .......................................................... Coach of Track
Richard P. Donohue, B.S. ........................................................ Assistant Coach of Track
Gerald R. Anderson, A.B. ......................................................... Coach of Golf
Philip E. O'Connell, Ph.B. ....................................................... Coach of Lacrosse
Nicholas B. Sharry, B.A. ......................................................... Coach of Tennis
William C. Samko, M.S. ...................................................... Assistant Trainer; Equipment Manager
Walter M. Mulvihill, M.D. .............................................................. Physician
Francis H. Carr, M.D. .............................................................. Physician

* At the end of the season, Mr. Massucco succeeded Dr. Anderson as Head Football Coach and Carlin F. Lynch, B.S. was named Assistant Coach of Football.
Honor Societies

ALPHA SIGMA NU
(Holy Cross Chapter)

Alpha Sigma Nu is a National Honor Society with chapters in various Jesuit Colleges and Universities throughout the United States. It is a society organized to honor students who have distinguished themselves in scholarship, service and loyalty to their College; to promote the interests of their College; to foster all praiseworthy student activity; to unite those alumni who most fully understand and appreciate those ideals in themselves and others.

The following members were elected to the Holy Cross Chapter in 1964.

CLASS OF 1964
Peter J. Barrett
Michael E. Burke
George S. Deptula
Stephen I. Hemenway
David J. Nordlohn
Donald F. Romano
David S. Zamierowski
Raymond S. Zierak

CLASS OF 1965
Frederick W. Assini
John T. Bradt
Roger H. Cook
Timothy J. Murtaugh
Richard A. Nusser
Richard G. Powers
Stephen J. Rojciewicz, Jr.
Raymond B. Ruddy
Robert E. Sawyer, Jr.
James H. Spaustat
William R. Sullivan
William S. Thomas
John H. Wendelken
John W. Zielenbach

DELTA EPSILON SIGMA
(Alpha Iota Chapter)

Delta Epsilon Sigma is the National Scholastic Honor Society for Catholic colleges and universities. It was founded to recognize academic accomplishments, to foster scholarly activities, and to provide an intellectual meeting ground for its members. The Delta Epsilon Sigma Bulletin, a scholarly quarterly, is the official organ of the Society.

The chapter at Holy Cross (Alpha Iota) is largely a faculty chapter, although some students are elected to membership each year. Officers for 1963-64 are: Dr. Edward F. Callahan, President; John D. O'Connell, Secretary-Treasurer.

The following students were elected to the Holy Cross Chapter of the Delta Epsilon Sigma Honor Society in 1963:

Rev. William A. Carroll, S.J.  Martin Fritts
Charles F. Amelin  Stephen I. Hemenway
A. Sidney Barritt, III  Arthur J. Kremer
William F. Bobzien, III  Patrick H. Mattingly
Thomas F. Comerford  Edward M. Mullin, Jr.
William T. Conroy  Daniel M. Pisello, Jr.
Timothy Dacey, III  Robert V. Prink
George Deptula  Daniel Stella
Lawrence G. Duggan  Robert J. Walat
William F. Fehlner  John A. Wroblewski
John A. Zaia
### Presidents of Holy Cross

#### 1843-1965

<table>
<thead>
<tr>
<th>Year Range</th>
<th>President</th>
</tr>
</thead>
<tbody>
<tr>
<td>1843-45</td>
<td>Very Rev. Thomas F. Mulledy, S.J.</td>
</tr>
<tr>
<td>1845-48</td>
<td>Very Rev. James Ryder, S.J.</td>
</tr>
<tr>
<td>1848-51</td>
<td>Very Rev. John Early, S.J.</td>
</tr>
<tr>
<td>1854-57</td>
<td>Very Rev. Peter J. Blenkinsop, S.J.</td>
</tr>
<tr>
<td>1861-67</td>
<td>Very Rev. James Clark, S.J.</td>
</tr>
<tr>
<td>1867-69, 1883-87</td>
<td>Very Rev. Robert W. Brady, S.J.</td>
</tr>
<tr>
<td>1878-83</td>
<td>Very Rev. Edward D. Boone, S.J.</td>
</tr>
<tr>
<td>1887-89</td>
<td>Very Rev. Samuel Cahill, S.J.</td>
</tr>
<tr>
<td>1889-93</td>
<td>Very Rev. Michael O'Kane, S.J.</td>
</tr>
<tr>
<td>1893-95</td>
<td>Very Rev. Edward A. McGurk, S.J.</td>
</tr>
<tr>
<td>1895-1901</td>
<td>Very Rev. John F. Lehy, S.J.</td>
</tr>
<tr>
<td>1901-06</td>
<td>Very Rev. Joseph F. Hanselman, S.J.</td>
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<tr>
<td>1906-11</td>
<td>Very Rev. Thomas E. Murphy, S.J.</td>
</tr>
<tr>
<td>1927-33</td>
<td>Very Rev. John M. Fox, S.J.</td>
</tr>
<tr>
<td>1945-48</td>
<td>Very Rev. William J. Healy, S.J.</td>
</tr>
<tr>
<td>1954-60</td>
<td>Very Rev. William A. Donaghy, S.J.</td>
</tr>
<tr>
<td>1960-</td>
<td>Very Rev. Raymond J. Swords, S.J.</td>
</tr>
</tbody>
</table>
CAMPUS BUILDINGS

ALUMNI HALL, given by former students, contains student residences on the upper floors, classrooms and faculty offices on the lower floors. It was opened in 1904.

THE ATHLETIC FIELDS AND INTRAMURAL GYMNASIUM contain the football gridiron, the baseball diamond, the quarter-mile track, tennis courts, basketball courts, and facilities for all other outdoor and indoor sports. The baseball diamond on Fitton Field is bounded on the east by the football gridiron which is surrounded on four sides by stadia seating nearly 23,000. Freshman Field and Alumni Field are suitable for practice and for the games of the intramural teams. On the plateau that crowns the hill south of the College buildings, as well as on the lower east level, are laid out diamonds and gridirons for intramural contests, in which the majority of undergraduates participate. The Intramural Gymnasium was constructed in 1947.

BEAVEN HALL is named in honor of the late Bishop Thomas D. Beaven of Springfield, '70, who sponsored its construction. Opened in 1914, the building contains offices on the first floor and student residences on the upper floors.

BISHOP HEALY HALL was constructed during 1962. It is named for the late Most Rev. James A. Healy, valedictorian of the college's first graduating class of 1849, the first American bishop of Negro ancestry, and the second bishop of Portland, Maine. The building contains living accommodations for students and faculty members and has a student lounge on the first floor.

CAMPION HALL was opened in 1936 to provide living quarters for a limited number of students and converted in the summer of 1962 to a student service facility.

CARLIN HALL was opened under the direction of Very Rev. James J. Carlin, S.J. as Loyola Hall in 1922 and later was re-named for Father Carlin, who was President from 1918-24. Student residences occupy the upper floors and classrooms and faculty offices are located on the lower floors.

CLARK HALL was constructed in 1962 and is dedicated to the late Very Rev. James P. Clark, S.J., president of the college from 1861-67. It contains living accommodations for students and faculty members and has a student lounge on the first floor.

DINAND LIBRARY was opened in 1927 and bears the name of the late Very Rev. Joseph N. Dinand, S.J., President of the college from 1911-18 and again during the years 1924-27. It contains more than 205,000 volumes, the Louise Imogene Guiney and David I. Walsh collections.

FENWICK HALL is the oldest of the college buildings. It is named for the founder of Holy Cross, the late Most Rev. Benedict Joseph Fenwick, second Bishop of Boston, who founded the college in 1843. Fenwick Hall was opened in 1844, destroyed by fire in 1852. It was rebuilt in 1853, with additions in 1868 and 1875. It contains administrative offices on the main floor and faculty residences on the upper floors.

HANSELMAN HALL was constructed during 1954 and bears the name of the late Very Rev. Joseph F. Hanselman, S.J., President of the college from 1898-1906. It contains living accommodations for students and faculty members and has a student lounge on the first floor.

KIMBALL HALL was constructed in 1935 and honors the name of Rev. Charles L. Kimball, S.J., former Classics professor at Holy Cross. It contains the student dining room, a bookstore, postoffice, theatre and the offices of the Dean of Men.

LEHY HALL was constructed during 1954. Dedicated to the late Very Rev. John F. Lehy, S.J., President of Holy Cross during the years 1895-1901. It contains living accommodations for students and faculty members and has a student lounge on the first floor.

O'KANE HALL, built in 1893, stands at the summit of Linden Lane, the main entrance to the college. It honors the late Very Rev. Michael O'Kane, President of Holy Cross from 1889-93. On the main floor is the visitors' reception lounge and on upper floors are administrative and faculty offices.

O'NEIL MEMORIAL HALL was opened in 1951 and is dedicated to the William F. O'Neil family, benefactors of the college. Located on the western side of Beaven Hall, it contains classrooms and facilities of the Biology department.

ST. JOSEPH'S MEMORIAL CHAPEL AND THE MARY CHAPEL are dedicated to the memory of the graduates of Holy Cross. Each of the two chapels contains a seating capacity of 900. The Memorial Chapel was constructed in 1924 and the Mary Chapel, which occupies the lower floor, was opened in 1955.

WHEELER HALL was opened in 1940 and honors the late Rev. John D. Wheeler, S.J., a former college administrator. It contains classrooms on the lower floor and student residences on the upper floors.
DONORS TO THE LIBRARY

1964

Edward F. Casey Fund
Rev. Callaghan A. Cordon, '11 Fund
Mrs. J. Frank Facey Fund
Ray W. Heffernan Fund
Henry M. Hogan, '18 Fund
Class of 1949 Fund (Holy Cross College)
Class of 1953 Fund (In memory of
  Rev. Clarence E. Sloane, S.J.)
Henry Hand, '63 Fund
James M. Hoy, '05 Fund
Miss Anne Lucey Fund
John E. Lucey Fund
Rev. George E. McKeon, S.J. '39 Book
  Fund (Class of 1962)
Rev. Brendan McNally Book Fund
  (In memory of Fr. McNally, S.J.)
Rt. Rev. Msgr. John T. Madden, '72 Fund
Francis Miller Fund
The John D. O'Connell, '53 Fund
Richard J. O'Connor, '44 Fund
Rt. Rev. Msgr. John F. Reilly, USN Fund
James H. Snyder, '53 Fund
Foster Stearns Fund
Foster Stearns Fund (In memory of
  Rev. Clarence E. Sloane, S.J.)
William S. and Mabel Tod Fund
James A. Treanor, Jr., '24 Fund
American Academy of Political and
Social Science
American Council of Learned Societies
American Federation of Labor &
Industrial Organization
American Jesuits in China
American Petroleum Institute
Assumption College
Prof. Olier Baril
Norbert Benotti, '35
Joseph C. Brodenrader, '63
Book of the Month Club
Boston College High School
Prof. Richard Bourcier
Boussac Libraire
Edward Brawley, '48
Brotherhood of Railway &
Steamship Clerks

Canadian Consulate General
Center of Intercultural Information,
Mexico
Clark University Library
Colonial Press
Consulate of the Federal Republic of
Germany
Joseph P. Craugh, '14
John T. Croteau, '31
Dr. Robert S. Crowe, '31
Francis W. Cullen, '52
Cultural Center of The French Embassy
Daughters of St. Paul
Stanley J. Dolat
Hon. Harold D. Donohue
Raymond E. Donovan, '51
Martin Drohan
Prof. Francis Drumm, '22
Duke University Press
Dummer Academy, Trustees of
Educational Policies Commission
Faber & Faber Publishers
Fairfield University
Mrs. John M. Fallon
Rev. John B. Farrell
Federal Deposit Insurance Corporation
Financial Executives Research Foundation
Mr. James Flemming
University of Florida
William S. Flynn, '07
W. Arthur Garrity, '05
Mrs. Robert H. Goodard
Dr. and Mrs. William J. Grattan, '38
Chester Green
Guggenheim Memorial Foundation
Gulf Oil Corporation
Harvard Business Review
Health Insurance Institute
Information Service of South Africa
Inland Waterways' Common Carriers Assoc.
Intergovernmental Committee for
European Migration
Consulate of Ireland, Boston
Lawrence J. Jackson
Frank T. Judge, '49

142
1964 Commencement

Degrees Conferred

June 10, 1964

HONORARY DEGREES

DOCTOR OF CIVIL LAW
Lyndon Baines Johnson

DOCTOR OF LAWS
John Coleman Bennett
Edward Bernard Bunn

DOCTOR OF LETTERS
James Daniel Collins

DOCTOR OF SCIENCE
John Englebert Dunphy
Harry Joseph Goett

DOCTOR OF FINE ARTS
Francis Wayland Speight

DEGREES IN COURSE

MASTER OF SCIENCE

Robert Peter Aiello
Robert John Barile
John James Clifford
Richard Jeffrey Field
Earl Clarence Francis

William Edward Gillis
Charles Joseph McDonald
Norman Benoist O'Neal, S.J.
Anthony Joseph Scarpellino, Jr.
Robert Haly Zucarro

BACHELOR OF ARTS HONORS

Alfred Sidney Barritt III
    (cum laude)
Donald Francis Blanford
Timothy John Dacey III
    (summa cum laude)
James Francis Holloran III
Norbert William Kears, Jr.
Patrick Hayne Mattingly
    (cum laude)
Andrew Joseph McKenna

Edward Michael Mullin, Jr.
    (magna cum laude)
David Joseph Nordloeh
John Joseph O'Brien
John Joseph Regan
Paul Andreas Reising, Jr.
    (cum laude)
Ronald Albert Rispo
Jon Andrew Ruppe
    (cum laude)

John Andrew Wroblewski
    (cum laude)
BACHELOR OF SCIENCE HONORS

Jeremiah Patrick Casey
John Francis Denvir
William Robert Fehlner
(Magna cum laude)
Michael Timothy Flood
Michael James Hones
(Cum laude)
Thomas Ross Kelly
Dennis Howard O'Brien
(Summa cum laude)
James MacArthur Perry

Daniel Michael Pisello, Jr.
(Cum laude)
Thomas Francis Redmond
William Sanford Richards
(Summa cum laude)
Carl Louis Sylvester, Jr.
Robert Joseph Walat
(Cum laude)
Raymond Stanley Zierak
(Cum laude)

BACHELOR OF ARTS

Charles Francis Amelin
(Cum laude)
John Louis Andronica
Joseph Henry Ballway, Jr.
Terrence John Barnicle
Peter James Barrett
Philip Lane Barry
Paul Emerson Bates
Thomas Patrick Begley
James Robert Boehler
Kevin Elliott Booth
John Martin Bopp
Francis Xavier Boylan, Jr.
Paul Edward Brunell
Michael Edmund Burke
(Cum laude)
Robert Joseph Cahill
John Peter Canavan
Paul David Cashion
John Michael Chovaniec
Paul Andrew Coghlan
Peter Matthew Collins
James Michael Connolly
Thomas John Connolly
Thomas Robert Constable, Jr.
Philip Francis Corbett II
John Michael Costello
Francis Joseph Michael Covelli
Jerome Walter Cox
Robert Emmet Cronin
John Robert Dalphin
Anthony Nicholas DeMaria
George Everett DeMore

Roger Joseph Desautels
Robert Barron Dietz
Philip Roy Dixon
Charles Raymond Dobens
Joseph Aloysius Donovan
William Joseph Dooley, Jr.
Peter Jerome Doran
Thomas Bernard Dowd, Jr.
Michael William Doyle
Robert Justin Dumouchel
Robert Joseph Benedict Egan
Walter Michael Eisin, Jr.
John Joseph Farley III
Raymond Benedict Flannery II
Michael Stephen Flynn
Thomas Francis Fogarty
Luke Matthew Foley
Arthur Peter Frank
Douglas James Fraser, Jr.
Norbert Joseph Gilmore
James York Glimm
Andrew Hubert Gonyea
John Charles Gordon
Thomas Vincent Gradler
Michael John Graney
John Phillip Grattan, Jr.
Frederick William Gregory, Jr.
James Henry Griffin, Jr.
Raymond Alfred Guillette
(Cum laude)
James Collopy Hanson
John Frederick Hanson
Francis Joseph Harvey, Jr.
Stephen Ignatius Hemenway  
(cum laude)
George Harry Hill, Jr.
Gerald Bruce Hillenbrand
Michael Raymond Holland
William Joseph Hoye
John Douglas Paul Hubbard
Michael Joseph Hueston, Jr.
Michael Francis Hurley
Charles Louis Jagoda
Frank Kenneth Jensen
Charles Cameron Jordan
John Herbert Kavanaugh
Louis Gerard Kelly
Richard Gerard Kerwin
Harry William Keuper, Jr.
Paul Anthony LaCamera
Jerome Michael Lannan
Alan Duncan Lee
Peter Joseph Lombardo, Jr.
Stuart James Long
Paul James Madigan
Lorin Michael Maloney
George Edward Mansfield
Peter Edward McCarren
William Edward McCarron
John Patrick McDermott
Thomas Joseph McFadden
Stephen Anthony McGratty
Kevin Joseph McGuire
Thomas Charles McIntyre
Richard Francis McKenna
Thomas Gray McMahon
Philip John Metres, Jr.
Robert Bennett Miller
André Richard Montminy
George Waring Moran
Joseph Francis Moriarty, Jr.
Jon Nicholson Morris
Thomas Michael Mulcahy, Jr.
Robert Goodman Murphy
Stephen Stanley Nasuta
Robert Edward Nist
Peter John O'Brien
John Frederick O'Connell
Michael Kevin O'Connor
Peter Damien O'Connor
Martin Joseph O'Malley
Richard John O'Reilly
Richard Harrison Orpheus, Jr.
John Patrick O'Sullivan, Jr.
Jeremy Michael Papantonio
Nicholas Lew Parker
Henry Seymour Partridge
John William Pepper
John Paul Perugini
Thomas Wilson Provenzano
Anthony Ralph Pullano
John Peter Rako
Charles Ellis Reagan
Michael Hugh Reilly
Vincent John Reilly, Jr.
Timothy Folan Ridge
Michael Earle Righi  
(cum laude)
Eric Theodore Rippert
George Kevin Roche
Anthony Joseph Michael Schaeffer
John Vincent Scuderi
Paul Ignatius Sherman
Robert Emmet Shields
Timothy John Shorten
John Joseph Smith
James Maurice Sponso
John Parsons Staffier
Michael John Stringer
Thomas Edward Sullivan III
Richard Thomas Tracy
Thomas Andrew Tracy, Jr.
Joseph Shannon Trombly
Nicholas Andre Viner
Frank Morehouse Walsh
David Stillman Warde
Edward Joseph Welch, Jr.
William Richard White  
(cum laude)
Edward Francis Widronak
John Anthony Zaia  
(cum laude)
David Stephen Zamierowski
BACHELOR OF SCIENCE

Charles Anthony Abdella
Joseph Aieta III
Vincent Joseph Amabile
James Frederick Arpe
Brien Paul Atkinson
William Robert Attridge
Robert Peter Bacon
Jeffrey Allen Bandrowski
John Francis Barry
Roger Vincent Bartholomew
Joseph Henry Bastien
George Gordon Baxter III
Edward George Becht
John Robert Bien
William J. J. Bleichert, Jr.
Rafael Bartolome Borras
Thomas John Bowen, Jr.
Michael Edward Boyce
Andrew Edward Brennan
Kenneth Clifford Brennan
Gerard Francis Brocklesby
Francis Joseph Broderick
Michael John Brown
Richard Leo Burden
Benjamin Andrew Burrell
Thomas Harold Butler
William Joseph Butler, Jr.
Richard Francis Byrne
John Joseph Byrnes
Daniel Joseph Caecchio
David James Callahan
Leonard Paul Callahan
Paul Francis Xavier Carey, Jr.
Philip Louis Caron
Edward James Casey
Michael Charles Cassily
John Alan Cegalis
John Edgar Chadwick, Jr.
Anthony Peter Chianese
Raymond Cinco, Jr.
Gerald Edward Colbert
William Michael Coli
William James Comcowich
Richard Joseph Conley
Philip Joseph Connell, Jr.
James Patrick Cooney, Jr.
Donald Eugene Cote

John Monaghan Coughlin, Jr.
Ronald Joseph Coulter
Francis Taylor Crimmins
Christopher Xavier Curry
Daniel William Daly
Nicholas Peter DeCarlo
Thomas John Decker
Robert John DelVecchio
Bernard Hayden Dempsey, Jr.
George Stanley Deptula
(magna cum laude)
Louis John DeSandro, Jr.
James Michael Devine
Marvin James DeVoe
Ronald Eugene Dower
James Francis Xavier Doyle
Terence Michael Doyle
William Brown Facey, Jr.
Paul Farley
Michael John Fasco
Robert William Fink
Raymond Mario Fino
Paul Patrick Flynn
Bernard Joseph Foley, Jr.
Joseph Jerome Frank, Jr.
John Aloysius Frauenheim, Jr.
Donald Thomas Gallagher
John Joseph Gallagher
Patrick William Gallagher
Patrick Richard Gil
Frank Patrick Gilligan, Jr.
Lee Stephen Giudici
Eugene Walter Grabowski
John Edmund Grady, Jr.
Edward Francis Hagerty, Jr.
Edward Benno Hanify
Robert Christopher Hannon
John Patrick Haran
Timothy George Hayes
James Walter Healy
Herbert John Hendley
Michael Hennessey
Thomas Michael Hennessey, Jr.
Robert Philip Hickey, Jr.
David George Holborn III
Daniel Nelson Holleran
Christopher John Hoppin
James Joseph Horan
William Edward Howard
Raymond Thomas Hyer
Bernard Francis Hyland, Jr.
Andrew Stephen Janik
Charles Nelson Jolly
Thomas Aquinas Jordan
Kenneth George Joseph
Richard Raymond Kane
Philip Francis Karpel
Brian James Kelly
Joseph Patrick Kelly
James Michael Kennedy
George Francis Kerin, Jr.
Joseph Henry Killion, Jr.
David Guertin Kirk
James Robert Kirk
Norbert Thomas Knapp
William Charles Knight
Arthur James Krener
(cum laude)
Normand Wilbrod Lafontaine
Maurice Laurence Lague
John Joseph Lambrech
Santo Michael Lanava
Bruce Leo LaRose
John Peter Lausten
Norman Joseph Leblanc
Charles Leonard Leussler
Joseph Robert Levis
Chester John Lewandowski
Roman Taras Lewicky
Richard Wayne Lewis
George Frederick Lochsfelm, Jr.
Michael Peter Lombardo
William Joseph Lynch
Herbert Myron MacDonald III
Leonard Thomas MacIsaac, Jr.
John Noel Mackessy, Jr.
John William Maher, Jr.
Ronald Thomas Maheu
Richard Lawrence Mairberger
David Michael Malone
Martin Guilbert Malsch
Patrick Thomas Maney
Robert George Manning
Arthur Ralph Marchiano
Joseph James Matelis
John Gaffney Maurer
Paul Ernest Mayer
Philip John McCaffrey
John Burch McDonald, Jr.
Brian Edward McGee
Phillip Havenerick McGinnis
Tracy George McGinnis
Joseph Ralph McGinniss
Thomas John McGlew
Robert Michael McGrail
Daniel Joseph McGrath
John Michael McGuinness
Bruce Robert McLaughlin
Peter John McOsker
Robert Nelson Meals, Jr.
Joseph Francis Merola, Jr.
William Dominic Metzger
Rimvydas Petras Miksys
Francis Xavier Miller
Ernest Michael Mittelholzer
Thomas Joseph Monahan
Daniel Leo Mooney
John Thomas Moran, Jr.
Daniel Joseph Moynihan, Jr.
David Stanton Moynihan
Peter George Mullany
Daniel Aloysius Mullin
Paul Anthony Mulready
Thomas Kennedy Mulvihill
James Arthur Murphy
William Richard Murray
Stanley James Nelson, Jr.
Edward Michael Nigro
Philip Roger Nobile
John Joseph O'Brien, Jr.
(magna cum laude)
Thomas Patrick O'Connell
Lawrence Michael O'Conner
Joseph Francis O'Neill, Jr.
Thomas Justin Orbacz
M. John Pittoni
Joseph S. Anthony Policastro
John Fleming Polk, Jr.
Philip Joseph Power
Rudolph Przydzihl Price, Jr.
Roger Louis Primeau
Paul Robert Provasoli
Ralph Richard Racicot
William Rankin
Robert Frederick Renselaer, Jr.
Frank Martin Reuter
Howard Francis Reznik
John Henry Rice, Jr.
Kevin Guerre Rick
Victor Lytle Ridder, Jr.
Kevin Thomas Riley
Donald Frederick Romano
James Michael Rose
Enda John Ryan
Thomas Francis Scanlon, Jr.
William Weigel Schmitt
Richard Charles Sewell
Robert Kenneth Skane
Francis Xavier Smith
John Raymond Smith
Robert Irving Smith
David Anthony Spina
Raymond Justin Sprindzunas
Jeremiah Thomas Sullivan
Theodore Francis Sullivan III
John Francis Sussilleana

Paul Joseph Symeon
David Charles Tassinari
Robert Francis Thomas
Raymond Coleman Traver, Jr.
William Stanley Trought
Robert Paul Trudel
Vincent Joseph Tumminello
John Terrence Turner
Rafael Victor Urrutia
L. Vincent Usera
Alex Carmine Velto
Patrick Joseph Vetrano
Thomas Francis Wall, Jr.
Michael James Wallingford
John Howard Weeks, Jr.
Thomas Joseph Weiss
John Frederick Wheaton
David Donald Whelehan
John Joseph Whitehouse
Raymond Thomas Wojcik
Raymond Daniel Wrenn, Jr.
Arturo Andres Ydrach

COMMISSIONED AS ENSIGNS IN THE UNITED STATES NAVY

Brian Paul Atkinson
George Gordon Baxter III
Francis Xavier Boylan, Jr.
Andrew Edward Brennan, Jr.
Leonard Paul Callahan
John Edgar Chadwick, Jr.
Michael William Doyle
John Aloysius Frauenheim, Jr.
Donald Thomas Gallagher
Patrick Richard Gil
Lee Stephen Giudici
Michael Hennessey
Robert Philip Hickey, Jr.
James Joseph Horan
Bruce Leo LaRose
Herbert Myron MacDonald III
Robert George Manning
Joseph James Matelis
Philip John McCaffrey

John Burch McDonald, Jr.
Bruce Robert McLaughlin
Robert Nelson Meals, Jr.
Philip John Metres, Jr.
Rimvydas Petras Miksys
Francis Xavier Miller
Daniel Joseph Moynihan, Jr.
William Richard Murray
Lawrence Michael O'Connor
Peter Damien O'Connor
Rudolph Przydzhil Price, Jr.
John Peter Rako
William Weigel Schmitt
John Joseph Smith
John Raymond Smith
David Anthony Spina
David Charles Tassinari
Richard Thomas Tracy
COMMISSIONED AS SECOND LIEUTENANTS IN THE
UNITED STATES MARINE CORPS
James Patrick Cooney, Jr.
John Philip Grattan, Jr.
Charles Leonard Leussler
Ronald Thomas Maheu
William Rankin
Kevin Guerre Rick

COMMISSIONED AS SECOND LIEUTENANTS IN THE
UNITED STATES AIR FORCE RESERVE
James Frederick Arpe
Roger Vincent Bartholomew
*Kevin Elliott Booth
William Joseph Butler, Jr.
Francis Taylor Crimmins
Christopher Xavier Curry
Louis J. DeSandro, Jr.
Marvin James Devoe
Charles Raymond Dobens
James Francis Xavier Doyle
William Brown Facey, Jr.
Edward Benno Hanify
*Christopher John Hoppin
Normand Wilbrod Lafontaine
*John Peter Lausten
Chester John Lewandowski
Richard Wayne Lewis
John William Maher, Jr.
*William Edward McCarron
Brian Edward McGee
Robert Michael McGrail
*Edward Michael Nigro
Richard Harrison Orpheus, Jr.
Robert Frederick Renselaer, Jr.
L. Vincent Usera

*Designated as Distinguished Air Force ROTC Graduates

DEGREES CONFERRED OCTOBER 13, 1964

BACHELOR OF ARTS
Edward M. Mulholland

BACHELOR OF SCIENCE
Peter J. Connelly
Christopher F. McGratty
Peter P. McGuirk
Peter M. O'Brien
David F. Ryan
Commencement Prizes

June, 1964

THE BELLARMINE HISTORY MEDAL

The Bellarmine Gold Medal, the gift of Mr. and Mrs. Edward J. McGratty, Sr., in memory of Patrick H. and Elizabeth L. McGratty, for the best historical essay on Colonial America.

Not awarded in 1964.

THE BOURGEOIS AWARD

The Bourgeois French Prize, the income on $1,000, established in 1947 by Albert L. Bourgeois, Esq., '22, in memory of his late father, Pierre Bourgeois, and of his mother, Fabiola Bourgeois, to be awarded annually for the best essay on a subject relating to the French or their descendants in the United States.

Awarded to: Andrew J. McKenna, of the Class of 1964.

THE NELLIE M. BRANSFIELD PRIZES

The Nellie M. Bransfield Award, founded in 1946, by the will of the late Nellie M. Bransfield, income on $2,000, to be awarded annually as prizes for excellence in elocution among the undergraduates.

Awarded to: John A. Bowen, of the Class of 1966, and Robert E. Sawyer, Jr., of the Class of 1965.

THE FRANK D. COMERFORD PRIZE

The Frank D. Comerford Silver Medal, founded in 1942 by the management and employees of the Boston Edison Company, to be awarded annually at Commencement Exercises to a student of the graduating class for excellence in public speaking.

Awarded to: Timothy J. Daley, III, of the Class of 1964.

THE CROMPTON SCIENTIFIC MEDAL

The Crompton Gold Medal, founded in August, 1875, by George Crompton, Esq., for the best Scientific Essay submitted during the school year.

Not awarded in 1964.
THE JOHN J. CROWLEY PRIZE

The John J. Crowley Purse (income on $1,000.00) awarded annually to provide purse or prize for best essay on any religious, literary, historical, economic or scientific subject.

Awarded to: Jerome W. Cox, of the Class of 1964.

THE PATRICK F. CROWLEY MEMORIAL PRIZE

The Patrick F. Crowley Purse, the income on $1,000.00, founded in July, 1947 by Bridget T. Crowley, in memory of her brother, Patrick F. Crowley, to be awarded annually for proficiency in debating and oratory.

Awarded to: Richard P. Garcia, of the Class of 1967.

THE DeVALERA HISTORY PURSE

The DeValera Purse (income on $1,000.00), the gift of Daniel H. Coakley, for the best essay on a subject taken from Irish history.

Not awarded in 1964.

THE FALLON DEBATING PRIZE

The Fallon Debating Prize, founded in 1901 by Rev. John J. Fallon of the Class of 1880, (income on $1,000.00).

Awarded to: Robert E. Prink and Robert E. Sawyer, of the Class of 1965.

THE FLAHERTY PRIZE IN HISTORY

The Flaherty Gold Medal, founded in May, 1903, by Patrick W. Flaherty, Esq., to be awarded annually for the best essay on a subject selected by the Faculty.

Not awarded in 1964.

THE FLATLEY PHILOSOPHY PRIZE

The Flatley Gold Medal, founded in 1890 by the late Reverend Michael F. Flatley of the Class of 1865, to be awarded annually to the student attaining the highest average in the philosophy courses of senior year.

Awarded to: Edward M. Mullin, Jr., of the Class of 1964.
THE EDNA DWYER GRZEBIEN PRIZE

The Edna Dwyer Grzebien Prize, established in 1960 by Doctor Thomas W. Grzebien in honor of his wife, former teacher of Modern Languages at Classical High School, Providence, R.I., income on $1,000.00, to be awarded annually to a student proficient in Modern Languages.

Not awarded in 1964.

THE REVEREND WILLIAM F. HARTIGAN MEDAL

The Reverend William F. Hartigan Medal, founded in May, 1932, by Josephine C. Hartigan in memory of her brother, the Reverend William F. Hartigan, to be awarded annually to a student of the graduating class submitting the best essay on a subject in Religion.

Not awarded in 1964.

THE KAVANAGH AWARD

The Kavanagh Medal, established in 1952 by the late Right Reverend Michael P. Kavanagh of the Class of 1893, to be awarded annually to the student writing the best original essay on some phase of Catholic Art or Christian Archaeology.

Not awarded in 1964.

THE KILLEEN PRIZE IN CHEMISTRY

The Edward V. Killeen, Jr. Chemistry Purse, for general excellence throughout the Bachelor of Arts premedical course in chemistry.

Awarded to: Edward M. Mullin, Jr., of the Class of 1964.

THE KRANICH PRIZE

The Kranich Gold Charm, the gift of the Kranich Brothers, Inc., of Worcester, Massachusetts, to be awarded annually to the student contributing the best essay to "The Purple."

Awarded to: Peter M. Collins, of the Class of 1964.

THE JOHN C. LAWLOR MEMORIAL PRIZE

The John C. Lawlor Gold Medal, the gift of the Class of 1911, to perpetuate the memory of Dr. John C. Lawlor of the Class of 1911, to be awarded annually to a letterman of the graduating class adjudged the outstanding student and athlete during the college course.

Awarded to: Richard L. Maiberger, of the Class of 1964.
THE WILLIAM E. LEAHY AWARD

The William E. Leahy Award in memory of William E. Leahy of the Class of 1907, to the outstanding debater in the B.J.F. Debating Society. This memorial prize consists of a medal and a cash award of $100.00.

Awarded to: Timothy J. Daley, III, of the Class of 1964.
           Donald F. Blandford, of the Class of 1964.

THE LEONARD PURSE

The Leonard Award, founded in 1951 by the will of the late Reverend John F. Leonard, to be awarded annually for proficiency in oratory, debating or like competition.

Not awarded in 1964.

THE MARKHAM MEMORIAL PRIZE

The Markham Memorial Prize consisting of a Gold Medal and a Purse of $100.00, established in 1947 by the Most Reverend Thomas F. Markham, D.D., of the Class of 1913, in memory of his parents, James and Honora Hickey Markham, to be awarded annually to a junior or a senior designated by the Dean as having the highest rank of academic proficiency in the philosophy course of Natural Theology.

Awarded to: Robert E. Sawyer, of the Class of 1965.

THE GERTRUDE McBRIEN MATHEMATICS PRIZE

The Gertrude McBrien Mathematics Prize, established in 1960, income on $1,000.00, to be awarded annually to a senior for proficiency in Mathematics.

Awarded to: Dennis H. O'Brien, of the Class of 1964.

THE McMAHON HISTORY PURSE

The McMahon Purses, three in all, founded in 1927 by the late Right Reverend Monsignor John W. McMahon of the Class of 1867, to be awarded annually for the best essays on the History of the Catholic Church in New England.

Not awarded in 1964.

THE NUGENT PHYSICS MEDAL

The Nugent Gold Medal, founded in June, 1894, by the Reverend Edward Evans Seagrave to perpetuate the memory of his ward, John T. Nugent, who died at the College in 1893, awarded annually for general excellence throughout the course in Physics.

Awarded to: William R. Fahlner, of the Class of 1964.
THE O'CONNOR DEBATING PRIZE

The Joseph J. O'Connor Purse, income on $1,000 the gift of the late Joseph J. O'Connor of the Class of 1909.

Awarded to: J. Gregory Mooney, of the Class of 1966.

THE MRS. KATE C. POWER MEDAL

The Mrs. Kate C. Power Medal, founded in 1942 by the will of the late Mrs. Kate C. Power to be awarded to the highest ranking student in the College of the Holy Cross in the Bachelor of Arts (with Honors) Course in the Sophomore year.

Awarded to: Lawrence G. Duggan, of the Class of 1965.

THE PURPLE PRIZE

The Purple Purse, the gift of the College, to be awarded annually to the student contributing the best poem to "The Purple."

Awarded to: David J. Nordloh, of the Class of 1964.

THE REVEREND JOHN F. REDICAN PRIZE

The Reverend John F. Redican Medal, donated by a friend in memory of the Reverend John F. Redican, '78, awarded annually to the Junior (Honors Course) with highest rank in Philosophy.

Awarded to: Timothy J. Dacey and Edward M. Mullin, of the Class of 1964.

THE REILLY MEMORIAL PRIZE

The James H. Reilly Memorial Purse, the income on $600, founded by Joseph J. Reilly of the Class of 1904 and immediate relatives, to be awarded annually to the student contributing the best short story to "The Purple."

Awarded to: James Y. Glimm, of the Class of 1964.

THE FREEMAN M. SALTUS PRIZE

In memory of Freeman M. Saltus, awarded for excellence in essays on labor or economics.

Not awarded in 1964.
THE STRAIN PHILOSOPHY PRIZE

The Strain Gold Medal founded in June, 1877, to be awarded annually for the best essay on a subject selected from the field of philosophy.

Awarded to: James F. Holloran, of the Class of 1964.

THE LIEUTENANT WILLIAM PETER SULLIVAN, JR. MEDAL

The Lieutenant William Peter Sullivan, Jr. Medal, the gift of Mrs. William P. Sullivan, Jr., in memory of her late husband, Lieutenant William Peter Sullivan, Jr., U.S. Naval Reserve, of the Class of 1939, to be awarded annually to the member of the varsity track team who, by vote of his fellow team members, is adjudged to have merited this award.

Awarded to: Lorin M. Maloney, of the Class of 1964.

THE VARSITY CLUB NORTON PURSE OR MEDAL

For an athlete in the Bachelor of Arts Curriculum. (Income on $500.00)

Awarded to: Patrick H. Mattingly, of the Class of 1964.

THE JOHN E. WICKHAM MEMORIAL PRIZE

The John E. Wickham Gold Medal, founded in 1939 by Mrs. Nicholas Wickham of Lee, Massachusetts, in memory of her son, The Reverend John E. Wickham of the Class of 1899, to be awarded annually to the highest ranking student of the graduating class.

Awarded to: Dennis H. O'Brien, of the Class of 1964.
## JESUIT EDUCATIONAL ASSOCIATION

### Colleges and Universities

<table>
<thead>
<tr>
<th>State</th>
<th>Universities</th>
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<tbody>
<tr>
<td>Alabama</td>
<td>Spring Hill College, Spring Hill</td>
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<td>California</td>
<td>Loyola University of Los Angeles</td>
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<td></td>
<td>Santa Clara University, Santa Clara</td>
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<td></td>
<td>University of San Francisco</td>
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<td>Colorado</td>
<td>Regis College, Denver</td>
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<tr>
<td>Connecticut</td>
<td>Fairfield University, Fairfield</td>
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<td>District of Columbia</td>
<td>Georgetown University, Washington</td>
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<td>Illinois</td>
<td>Loyola University, Chicago</td>
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<td>Louisiana</td>
<td>Loyola University, New Orleans</td>
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<tr>
<td>Maryland</td>
<td>Loyola College, Baltimore</td>
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<td>Massachusetts</td>
<td>Boston College, Chestnut Hill</td>
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<td>College of the Holy Cross, Worcester</td>
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<td>Michigan</td>
<td>University of Detroit, Detroit</td>
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<td>Missouri</td>
<td>Rockhurst College, Kansas City</td>
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<td>St. Louis University, St. Louis</td>
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<td>Nebraska</td>
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<td>New Jersey</td>
<td>St. Peter's College, Jersey City</td>
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<td>New York</td>
<td>Canisius College, Buffalo</td>
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<td>Fordham University, New York City</td>
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<td>Le Moyne College, Syracuse</td>
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<td>Ohio</td>
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<td>Pennsylvania</td>
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<td>University of Scranton, Scranton</td>
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<td>Washington</td>
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<td>Seattle University, Seattle</td>
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<td>West Virginia</td>
<td>Wheeling College, Wheeling</td>
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<tr>
<td>Wisconsin</td>
<td>Marquette University, Milwaukee</td>
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</tbody>
</table>
Academic Calendar

September, 1965 - June, 1966

FALL TERM

Sept. 10 Friday Registration for Freshmen.
Sept. 11 Saturday Freshman Orientation.
Sept. 12 Sunday Freshman Orientation.
Sept. 13 Monday Registration for Sophomores.
Sept. 14 Tuesday Registration for Juniors and Seniors.
Sept. 15 Wednesday Fall Term begins.
Oct. 12 Tuesday Columbus Day, a holiday.
Nov.  1 Monday All Saints Day, a holiday.
Nov.  8 Monday Mid-Semester Survey and Warning.
Nov. 11 Thursday Veterans' Day, a holiday.
Nov. 24 Wednesday After 10:30 A.M., Thanksgiving Recess.
Nov. 29 Monday Classes resume.
Dec.  8 Wednesday Feast of Immaculate Conception, a holiday.
Dec. 17 Friday Christmas Vacation after last class.
Jan.  3 Monday Classes resume.
Jan. 15 Saturday First Term Examinations begin.
Jan. 25 Tuesday Semester Recess.

SPRING TERM

Jan. 31 Monday Spring Term begins.
Feb. 21 Monday No Classes
Feb. 22 Tuesday Washington's Birthday, a holiday.
Mar. 14 Monday Reading Week begins.
Mar. 21 Monday Classes resume.
Apr.  5 Tuesday Easter Vacation begins after last class.
Apr. 13 Wednesday Classes resume.
May  19 Thursday Ascension Thursday, a holiday.
May 21 Saturday Second Term Examinations begin.
May 30 Monday Memorial Day.
Jun.  1 Wednesday Examinations end.
Jun.  4 Saturday Alumni Day.
Jun.  7 Tuesday Baccalaureate Exercises.
Jun.  8 Wednesday Commencement Day.
<table>
<thead>
<tr>
<th>1965</th>
<th>September</th>
<th>1966</th>
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Index

Academic Calendar, 158
Academic Failure; Probation, 98
Academic Policies, 95-105
Acceptance Deposit, 102
Accident Insurance, 28
Act of Incorporation, inside cover
Administration, Officers of, 107-08
Admission to College, 9
Advanced Placement, 10
Advanced Standing, 101
Advisors for Students, 30
Aerospace Studies, 66-67
Affiliations, 105
Air Force ROTC Unit, 31, 66-67
Alpha Sigma Nu, 138
Alumni Placement Bureau, 31
Alumnus, The, 136
Athletic Association, 137
Athletics, Intramural, 133
Attendance at College Exercises, 55
Awards, Graduation, 151-56
   Scholarships, 38, 122-131
Bequests and Legal Form, 162
Bills, College, Payment of, 36
Biology, Department of, 41-42
Calendar, 159: Academic, 158
Campus Buildings, 140-41
Chapel, 141
Chaplains, College, 109
Chemistry, Department of, 43-46
   Graduate Program, 89-91
Choir, 133
Class Hours, 95
Classics, Department of, 47-49
Clubs, Music, 135
Coaches, Athletic, 137
College, History of, 3-4; 139
College Organizations, 132-135
College Year, 95
Commissions, Navy, Marine, Air Force, 149-150
Committees, Faculty, 109-110
Communications Directory, 162
Conditional Failure, 99
Counseling Services, 29-30
Course, Changes, 100
Courses of Instruction, 41-94
Credit Hours, 95
Cultural Events, 31
Curriculum, 12-25
Curriculum Changes, 100
Curriculum Requirements, 15-25

Debating, 133
Degrees, Requirements for, 103-104
   Bachelor of Arts, 103
   Bachelor of Science, 103
   Master of Science in Chemistry, 89
Degrees Conferred—1964, 144-149
Delta Epsilon Sigma, 138
Dinand Library, 28-29
Discipline, 7
Donors to the Library, 142-43
Dormitory Accommodations, 28

Early Admission, 10-11
Economics, Department of, 50-53
Education, Department of, 54
Educational System, 6-7
Employment, Campus, 38
English and Fine Arts, Department of, 55-58
Entrance Requirements, 9-10
Examinations:
   Conditional, 99
   Entrance, 9
   Oral, 102
Expenses, College, 36-38
Extra Courses, 99
Faculty:
   Committees of, 109-110
   Officers of Administration, 107-108
   Officers of Instruction, 110-121
Fees, College, 36-37
   Acceptance, 102
   Boarding Students, 36
   Late Registration, 102
   Payment of Bills, 36
   Special, 102
   Tuition, 36
Fellowships in Chemistry, 91

160
Bequests

Gifts to the college may take the form of funds for the establishment of scholarships or professorships; or the foundation of medals and other prizes; of additions to the material equipment; of contributions to the general fund, or may be undesignated. Those desiring to make a bequest to the College of the Holy Cross in their wills may be helped by the following suggested form:

Legal Form of Bequest

I give (devise) and bequeath to the Trustees of the College of the Holy Cross, a corporation under the laws of the Commonwealth of Massachusetts, and located in the City of Worcester, Massachusetts, and their successors forever, the sum of

.................................................................................................................. Dollars

(or otherwise describe the gift) for its general corporate purpose (or name a particular corporate purpose).

COMMUNICATIONS DIRECTORY

Correspondence should be addressed to the college officials listed below and mailed to College of the Holy Cross, Worcester, Massachusetts 01610.

Academic Records ......................................................... The Registrar
Alumni Placement .................................................. Director of Alumni Placement
Admissions and Catalogues ................................. Director of Admissions
Alumni Affairs ................................................... Alumni Executive Secretary
Athletics ............................................................... Director of Athletics
Development Program ........................................ Director of Development
Educational Program ............................................... The Dean
Financial Affairs .................................................. The Treasurer
General College Policy .................................. The Very Reverend President
Housing Accommodations .............................. The Dean of Men
Library Information ........................................ The Librarian
Personnel .......................................................... Director of Personnel
Public Relations ................................................ Director of Public Relations
Special Studies, Honors Programs ............... Director of Special Studies

The College telephone number is 791-6211, connecting all offices.

Telephone Area Code 617